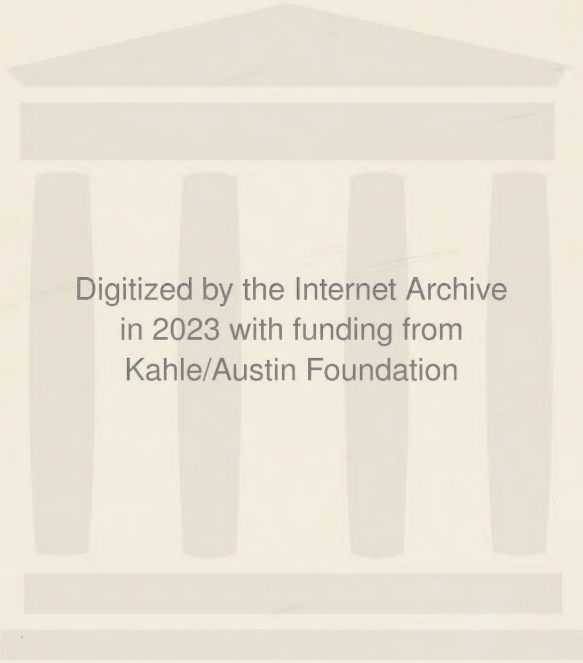


THE
FLOWER-FINDER
GEORGE L. WALTON, M.D.





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THE FLOWER-FINDER



Pasture Thistle (*Cirsium pumilum*)

THE FLOWER-FINDER

BY
GEORGE LINCOLN WALTON, M.D.

MEMBER OF THE NEW ENGLAND BOTANICAL CLUB

FRONTISPIECE PHOTOGRAPHED BY
W. H. STEDMAN

OTHER PHOTOGRAPHS BY
HENRY TROTH

573 PEN AND INK DRAWINGS
FROM NATURE BY THE AUTHOR



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To
MY FRIEND AND COLLEAGUE
JOSEPH LINCOLN GOODALE

IN APPRECIATION OF
HIS PERENNIAL GOODNATURE
AND ENDLESS PATIENCE

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PREFACE

THE study of wild flowers offers an unrivalled diversion for one who, on retirement from active work, feels the need of something to replace the interests which have hitherto absorbed him. It is also well for the plodder, in danger of going stale from too protracted toil, to improve such opportunities as offer for the broadening of his horizon before it is too late. It gives one a tangible interest in the open, and displaces the familiar worries by substituting a new and stimulating interest—an interest, too, that appeals always to our better side. Nor do I know of any pursuit in which so satisfactory progress can be made by the novice without such painstaking study as materially diminishes the value of the fad—that essential adjunct to every well-ordered life.

But the novice must learn to recognize the specimens he would study. The book has been prepared with this need in view. The plan adopted will render it comparatively easy for the learner, the amateur, indeed the beginner, to identify many of the wild flowers and fruits in the northeastern part of the United States, especially those of definite color and other marked characteristics. For one already familiar with the elements of botany it will be still easier.

The arrangement of flowers according to color, though in many ways unsatisfactory, and particularly shocking to the initiated on account of the severance of families, has proved of great assistance to the non-botanist. It is true that some flowers run through various colors, but most wild flowers have a vastly predominant, if not a universal, color. In this book the flowers are not only so arranged, but to save tedious search through the descriptions, line drawings are inserted of all excepting of those with slight differences. Furthermore, charts for each color have been made, by which a given specimen may be

PREFACE

traced to the group in which it will be found. For assistance in case one recognizes the family to which a specimen belongs, an index by families is inserted at the end of the book, indicating on what pages and under what colors the members of each family are found. All has been compressed into convenient form for field use.

No special study or training is required to follow these charts. It will only be necessary, for one not familiar with botanical terms, to master the directions, particularly the directions regarding the form and arrangement of the leaves and flowers. So much botanical knowledge it will harm no one to acquire. Peculiarities of the plants, flowers, and fruits, obvious to the non-botanist, but fairly constant, have been selected, while botanical terms have been as far as possible avoided and replaced by words in common use.

I should be sorry if this plan suggests that it is not worth while to learn the scientific classification of the flowers, or that it is a matter of no interest to study their habits and their method of fertilization. But the main object of this book is to facilitate the recognition of the flowers and fruits; it is little likely that anyone interested enough to go so far will go no farther.

If a flower has eluded the searcher I have generally found it due to the fact that the charts have been tried without studying the explanatory chapter. The commonest stumbling-block has been the failure to learn the meaning of the terms shrub and herb, composite flower, and compound leaf.

For the families and the Latin names Gray's Manual (Seventh Edition) has been followed. For other Latin names Britton and Brown should be consulted. These authorities have been my main reliance for facts, though many other books have been consulted. In names likely to be mispronounced, the grave accent is inserted for the long sound, the acute for the short, as in the Manual. In case the derivation of the generic name is not given it may generally be assumed it is either unknown or is an original plant name.

PREFACE

The selection of fruits is limited to a certain number attracting notice either on account of general distribution or conspicuous appearance. In this branch, Peterson's "How to Know the Wild Fruits" has been of especial assistance.

I am under great obligation to my friend, Mr. Arthur F. Benson, for suggesting the chart system in place of the more cumbersome plan I had previously adopted, and for arranging the charts for publication. The charts are a modification and simplification of those used in the "Practical Guide" (1909).

The line drawings I have made either from fresh or herbarium specimens: the latter mostly from the Phanerogamic Laboratory of Harvard University and from the Gray Herbarium, through the courtesy of Doctor Goodale and of Doctor Robinson; quite a number are drawn also from the Poland Spring Herbarium, collected by Kate Furbish, and from the private collection of my friend, Doctor J. L. Goodale. I can express my thanks only collectively to the many others to whom I am indebted either for specimens or for assistance in finding them.

BOSTON, 1914.

EXPLANATORY

To be carefully studied before using the charts

THE characteristics chosen for the charts are in general whether the plant is a shrub or an herb, its stem, the grouping and shape of its leaves, the grouping and shape of the flowers. With these features, therefore, one should be more or less familiar; thus, he should know the following facts:

A shrub is a woody plant smaller than a tree.

An herb is a plant with a soft stem dying down every year. It may generally be assumed in this book that a plant is an herb unless it is definitely stated that it is a shrub.

One must learn to observe not only the flowers but also the plants that bear them, not alone for the general interest, but because it is often a necessary step in the identification of the flower. Thus, one fundamental difference between plants is in the way their leaves are arranged, whether opposite, whorled, alternate, or from the root only. It is also important to distinguish the simple from the compound leaf.

With regard to the flowers themselves, one must note whether they grow separately or in groups, and if the latter, the form of the group. The shape of the flower must, of course, be noted, and whether all the parts of a complete flower are present, namely, calyx, corolla, stamens, and pistil.

It is also desirable to gain at least a nodding acquaintance with the prominent flower families.

These subjects are elaborated in the following pages.

LEAVES

LEAVES are opposite (Fig. 1), whorled, more than two springing from the same level on the stem (Fig. 2), or otherwise, including alternate (Fig. 3), and from the root only (Fig. 4). The leaf may have a stalk of its own (leaf-stalk or petiole), it may grow directly on the stem or the branch (sessile), or may, at its base, envelop or clasp the stem or the branch (Fig. 11). The technical terms for these conditions are avoided, but will be found in the glossary at the end of the book.

The leaf-stalks are set on the branches at varying angles so that no one leaf lies directly below the next one. This secures to each leaf the maximum amount of sunlight. Where the leaf-blades fall in line it will generally be found that it is because the stalks have become twisted. Thus Figs. 5 and 6 represent two branches from the same shrub, the one upright, the other inclined downward. The leaf-stalks in Fig. 6 leave the branch on the same planes as in Fig. 5, but the leaf-blades, by twisting of the stalks, have become parallel, doubtless because the greatest amount of sunlight is here thus obtained. This is made clear in the enlargement (Fig. 7).

It is to be remembered, however, that in illustrating plants the leaves are often represented flattened out as they are in herbarium specimens. Recognition of these facts will aid in telling a compound leaf, whose leaflets *are* on the same plane.

A compound leaf is made up of leaflets or separate similar parts; for example, a Clover leaf (Fig. 8) is made up of three leaflets, a Poison Sumach leaf (Fig. 9) of seven to thirteen leaflets, in this case of seven. In the Clover and Sumach the leaf is once compounded; it may be more than once compounded, as in Early Meadow Parsnip (Fig. 10), in which it is twice compounded. When the leaflets rise from a common point, as in the Clover or Horse-chestnut, they are said to be palmate; if

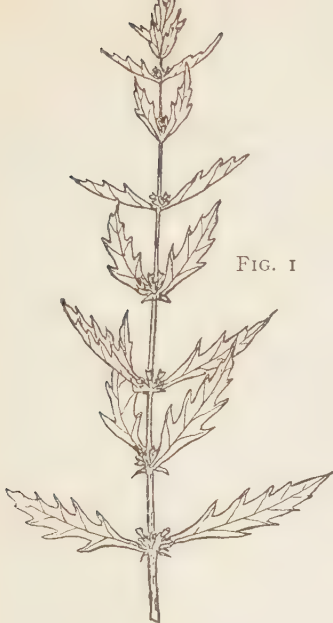


FIG. 1

LEAVES OPPOSITE
(*Water Horehound*)

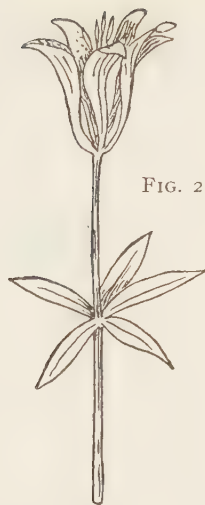


FIG. 2

LEAVES WHORLED
(*Wood Lily*)



FIG. 3

LEAVES ALTERNATE
(*Spring Cress*)

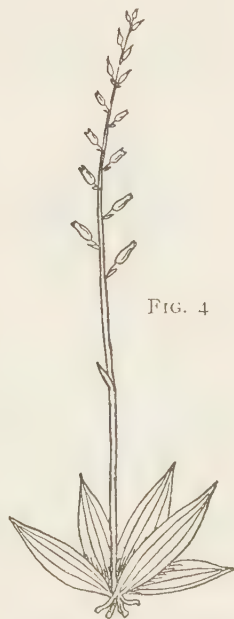


FIG. 4

LEAVES FROM ROOT ONLY
(*Colic-root*)

LEAVES

they succeed each other along a single stem like a feather, as in the Poison Sumach, they are said to be pinnate. A simple leaf has no leaflets, though it may be so deeply cut that the lobes

FIG. 5



FIG. 6



FIG. 7



FIG. 5 shows the arrangement of the leaves on an upright branch of a certain shrub.

FIG. 6 shows leaves on a dependent branch of the same shrub.

FIG. 7, an enlargement from FIG. 6, shows that the arrangement in line is due to the twisting of every other pair of leaf-stalks

FIG. 8



FIG. 9



FIG. 10



PALMATELY COMPOUND PINNATELY COMPOUND DOUBLY COMPOUND
(Clover) (Poison Sumach) (Early Meadow Parsnip)

suggest leaflets. If in doubt whether we have to do with simple leaves or with leaflets of a compound leaf, the question can be decided by noticing how the leaf-stalks spring from the main

LEAVES

stem. If they do so in a line, *i.e.*, in the same plane, they are leaflets, and the stem from which they spring is the stem (rachis) of a compound leaf.

The axil of a leaf (or of a branch) is the point where it leaves the branch or stem, important because it is a common location for blossoms.

A leaf (or a leaflet) may be known, among other characteristics, by its shape, by its edge, and by its surface.

THE SHAPE OF THE LEAF

The base of a leaf may be rounded, heart-shaped, arrow-shaped, or otherwise; its apex may be acutely or obtusely pointed, or otherwise. Such terms explain themselves, but the following explanations may aid in determining the general shape.

A lance-shaped (lanceolate) leaf has a long point and is broader toward the base than toward the apex (Fig. 11); the term egg-shaped (ovate) explains itself, excepting it should be noted that an ovate leaf is attached at the large end, and that its apex may be rounded, or may be pointed as in Fig. 12; a heart-shaped (cordate) leaf has its indentation at the base, its apex may be rounded, or it may be pointed as in Fig. 13. *Inversely* lance-shaped, egg-shaped, or heart-shaped means that the leaf is attached by its narrower end. An oblong leaf is longer than broad, and has more or less parallel sides (Fig. 14); a spoon-shaped (spatulate) leaf has a rounded end, and narrows toward its base (Fig. 15). A linear leaf is one with length but practically no breadth. A dissected leaf is cut up into small parts; a finely dissected leaf, into extremely small parts (Fig. 16). A leaf is lobed when its edge has projections larger than teeth (Fig. 17). A lyrate leaf is a leaf pinnately divided with a large lobe at the end (Fig. 18); the term kidney-shaped (Fig. 17) explains itself. The same terms are used, when applicable, to describe the shape of other parts, as petals or sepals.

The edge of the leaf may be smooth (entire), toothed (dentate), saw-toothed (serrate), round-toothed (crenate), wavy,

LEAVES

lobed, cut, parted (deeply cut), or divided, that is, with lobes reaching the base. These varieties are shown in the accompanying illustrations.

FIG. 11



LANCE-SHAPED,
CLASPING,
PINNATELY VEINED

FIG. 12



EGG-SHAPED,
POINTED,
WITH STALK

FIG. 13



HEART-SHAPED,
POINTED,
PARALLEL-VEINED

FIG. 14



OBLONG

FIG. 15



SPOON-SHAPED

FIG. 16



FINELY DISSECTED

FIG. 17



KIDNEY-SHAPED, LOBED

FIG. 18



LYRATE

FIG. 19



HALBERD-SHAPED

THE SURFACE OF THE LEAF

The surface of the leaf may be hairy, rough, smooth (glabrous), with a whitish bloom (glaucous), shiny, or woolly. Its veins may be parallel (running from end to end, as in Fig. 13), pinnate (like a feather, as in Fig. 14), or repeatedly divided (netted-veined).

FLOWERS

FLOWERS are either solitary (or few together) or are arranged in head, spike, raceme, umbel, or otherwise clustered, or they may be whorled on the stem.

In a head (Fig. 20) the flowers are closely clustered, as in the Clover. In a spike (Fig. 21) the flowers are arranged along a single stem, branch, or stalk, each flower growing directly from that "axis" practically or quite without a separate flower-stalk. In a raceme (Fig. 22) the flowers are likewise arranged along a

FIG. 20



HEAD

FIG. 21



SPIKE

FIG. 22



RACEME

FIG. 23



UMBEL

single stem or branch, but each flower has a separate stalk of its own. In an umbel (Fig. 23) the flower-stalks start from a common point. For popular use the umbel is not always carefully distinguished from other clusters, and umbellate clusters will sometimes be found under the general head cluster, for example, Marsh Andromeda, Bastard Toadflax, and Spurge. A compound umbel is one made up of small umbels on stalks which in their turn start from a common point, as in Early Meadow Parsnip. A panicle is a loosely branching cluster

FLOWERS

in which each flower has a flower-stalk. In a racemose panicle each branch is practically a raceme. A corymb is a flattened cluster in which the outer flowers bloom first. A cyme is a flattened cluster in which the central flowers bloom first.

THE SHAPE OF THE FLOWER

A papilionaceous flower is one bearing a certain resemblance to a butterfly, as the blossom of the pea or bean (see PULSE FAMILY, page xxi).

The calyx is the cup-like part which holds the rest of the flower; it may be made up of separate sepals or otherwise formed, and is generally green. The corolla is the part of the flower

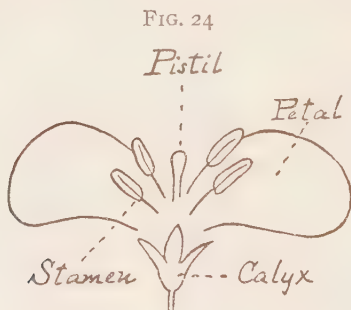


DIAGRAM OF A FLOWER

which generally gives the color; it may be made up of separate petals (polypetalous), or may be tubular, bell-shaped, urn-shaped, or otherwise, through the fusing of the petals (gamopetalous), as in Lily-of-the-Valley. The pistil generally arises from the centre of the flower, and is surrounded by stamens (Fig. 24). The stamen is the pollen-bearing organ, and consists of a stalk (filament) and a pollen-bearing sac (anther). The pistil is the pollen-receiving and seed-bearing organ, and is really made up of a stalk (style) and end-organ (stigma) and the ovary below, in which the seeds are formed. In common parlance the name pistil is applied to its visible part.

FLOWERS

A flower containing both pistil and stamens is called perfect. If containing stamens only it is staminate; if pistil only, pistillate; if neither, neutral. If pistillate and staminate are found in the same plant, it is called monœcious; if on different plants, dicecious. If a species has perfect, pistillate, and staminate flowers on the same or different plants, it is called polygamous.

The perianth is the floral envelope, as a whole, including corolla and calyx. It is sometimes found convenient not to attempt any distinction between calyx and corolla, the flower being described, for example, as having a four-parted perianth. The spathe is a large bract or modified leaf surrounding the flower-spike, as in Jack-in-the-Pulpit. The spadix is a spike with a fleshy centre; for example, the " Jack " of Jack-in-the-Pulpit.

A flower-head, whether composite or otherwise, is classed as a single flower, since it has that appearance. Leaves resembling flowers, or giving the distinctive color, as in Painted Cup, are classed among the flowers. The general color-effect determines the placing of the flower. In case of doubt under which of two colors a flower falls, try both. In case of doubt between pink and purple, give preference to purple, a color botanically very inclusive, covering, *e.g.*, lavender, lilac, and violet.

PROMINENT FAMILIES

WITH the Composite family it is important to be familiar. The Dandelion, the Daisy, and the Thistle are examples of this family. Here we fail to find the sepals, petals, stamens, and pistils according to our diagram of a flower because what appears to be a single flower is really made up of a great many little flowers or florets. To realize this, pull out what appears to be the petal of a Dandelion (Fig. 25). Its base will be found rolled up and from its centre will be seen to rise a little pistil, surrounded by a tube made up of the coalescing stamens.

FIG. 25



A DANDELION FLORET

The apparent petal, then, is the flattened corolla of a tiny floret, of which the Dandelion contains perhaps two hundred. The collection of florets is called a flower-head. Some or all of the separate flowers making up this flower-head may be tubular, as in the yellow centre (disk) of the Daisy, or their corollas may all appear like single petals (ligulate), as above described.¹ The disk florets are oftenest "perfect," the ray-flowers pistillate, not infrequently "neutral," in the latter

¹ In the classification found in Britton and Brown, those with all florets ligulate are included in the Chicory family, those with disks in the Thistle family.

PROMINENT FAMILIES

event not aiding in fertilization except by attracting the insects which are to carry the pollen from stamen to pistil. The calyx-tube adheres to the ovary and is often surmounted by bristles, etc. (pappus). The flower-heads are supported by a structure which often suggests a shingled calyx, with many green bracts, suggesting sepals, overlapping each other. This is called the involucre. Clover-heads are also made up of florets, but lack the involucre of the Composite family, and the floret is irregular. A magnifying lens is useful here, as elsewhere. Even without the lens one can see the little pistil of the Dandelion floret rising from the base of each strap-shaped corolla. Each floret, then, of the Dandelion is "perfect," that is, it has the organs necessary for fertilization, namely, the stamens and the pistil.

It will facilitate the study to know the common characteristics of a few other important families, thus:

Mustard family (*Cruciferae*). Herbs with alternate leaves, generally with small white or yellow flowers, with four sepals, four petals, and six stamens. Fruit a pod.

Parsley family (*Umbelliferae*). Herbs, often coarse, with many tiny flowers, with five petals and five stamens, in umbels, generally white or yellow; alternate leaves, generally compound; root sometimes aromatic, stem generally hollow. Queen Anne's Lace is a familiar example.

Heath family (*Ericaceae*). Generally shrubs, with alternate simple leaves, and blossoms with coalescing petals forming a so-called gamopetalous corolla, often urn-shaped. The Huckleberry is a familiar example.

Pulse family (*Leguminosae*). Easily recognized (excepting in the case of some regular flowers) by the corolla, which suggests a butterfly (papilionaceous). This corolla is formed of five irregular petals, the upper largest (standard), two lateral ones (wings), and two lower united (keel); generally ten stamens, all coalescing in a tube, or one separate, rarely all separate. Fruit a pod. Leaves commonly compound, alternate, with stipules. The Pea blossom is a familiar illustration. Clovers belong to this family, the separate flowers being small and packed in a head.

PROMINENT FAMILIES

Mint family (*Labiatae*). Generally herbs with square stems and opposite leaves, commonly simple, often aromatic; the blossoms generally somewhat two-lipped; stamens four, two longer, two shorter.

Crowfoot family (*Ranunculaceæ*). Herbs with alternate leaves, and often some from the root. Blossoms with petals and sepals varying from two or three to fifteen; petals sometimes absent. The sepals are sometimes colored so as to suggest petals. The Anemone and Buttercup are familiar examples.

Pink family (*Caprifoliaceæ*). Herbs with stems often hairy and swollen at the joints; opposite leaves; the petals and sepals generally five, sometimes four.

Lily family (*Liliaceæ*). Generally herbs with regular flowers, having a six-divided perianth (aggregation of sepals and petals) and six stamens. The perianth-divisions are alike in shape and color except in the Trilliums, in which the three petals are quite different from the three sepals. The plants sometimes rise from bulbs. The leaves may grow from the base or may be alternate, or whorled.

Orchis family (*Orchidaceæ*). Perennial herbs with very irregular flowers, commonly with three sepals and three petals, of like texture but different shades. One petal (the lip) generally differs greatly from the others in shape and is sometimes lengthened at its base into a spur. At the base of the lip is the "column," made up by the coalescence of the stamens (one or two) with the style. The flowers are sometimes showy, as the Lady's Slipper; again insignificant, as in Rattlesnake Plantain. The leaves are parallel-veined.

Rose family (*Rosaceæ*). Herbs, shrubs (or trees) whose flowers commonly have five uniform sepals, five petals, and numerous stamens. The leaves are alternate, often compound, with stipules.

Figwort family (*Scrophulariaceæ*). In general herbs with irregular, somewhat two-lipped corollas, four stamens, sometimes with an additional rudimentary one, and sometimes with pairs of unequal length. Leaves alternate, opposite, or whorled.

HOW TO USE THE CHARTS

EXAMPLE I

To cite first an extremely easy case, suppose we find, but cannot identify, the red Wood Lily (Fig. 2). Turning to the red chart, we read at the top, "First note whether plant falls in Class I, II, or III, then follow out to right. When a group-number is reached, turn to page indicated and look through the group."

Under Class I we find "Plants with leaves opposite," under Class II "Plants with leaves whorled," under Class III "Plants with leaves otherwise." The leaves of our plant are whorled, so we stop at Class II. Following this out to the right we find "Group II, p. 290." Turning then to page 290 we find that the description of the first flower in the group corresponds with that of our specimen. Indeed, a glance at the three illustrations on the opposite page satisfies us at once that the Wood Lily is our flower.

EXAMPLE II

To take a less simple case, let us suppose that we are unfamiliar with the Dandelion (Fig. 26) and wish to identify it. It is obviously yellow; we turn, therefore, to the chart for yellow and yellowish flowers. Following the directions at the top of the chart we first see whether the plant falls into Class I, II, III, or IV, namely:

- I. Plants with leaves opposite.
- II. Plants with leaves whorled.
- III. Plants with leaves neither opposite nor whorled.
- IV. Plants with no leaves.

HOW TO USE THE CHARTS

Our specimen falls in Class III, as its leaves are neither opposite nor whorled, but all proceed from the root. (We have found by the footnote on the chart, if we did not know it

FIG. 26



DANDELION

before, that the terms "opposite" and "whorled" refer only to leaves *on the stem*.) Following out to the right under Class III, we find

Leaves compound or dissected.

Leaves simple, and not dissected. See B, below.

HOW TO USE THE CHARTS

Our leaves are simple and not dissected, so we pass to B. Again following out to the right we find

Leaves mostly from root only.

Leaves alternate.

Our leaves are all from the root only, so we follow out to the right and find

Flowers composite = Group X, p. 36.

Flowers not composite = Group XI, p. 38.

Even if we did not already know we had to do with a composite flower we should gather it from the footnote, so we have found our group. Turning then to page 36 we find three flowers (Colts-foot, Fall Dandelion, and Dandelion) described, and on the opposite page are the illustrations. A glance at the illustrations shows that our flower is the Dandelion. This decision is confirmed by reading the descriptions; for we find that the Colts-foot's blossom has gone when the leaves appear, moreover, that the leaves are woolly underneath; we find further that Fall Dandelion stem is forking at the top, but that the description of Dandelion corresponds perfectly with our specimen.

This is as difficult a search as we are likely to find among flowers of definite color. And a little practice will enable us to follow the chart to the group in less time than it has taken to read this description of the process. It will greatly facilitate this practice for the beginner to ask some friend more versed in botanical terms to demonstrate from actual specimens the *compound leaf*, the *composite flower*, the *spike*, the *raceme*, the *umbel*, and the *head*, also to point out *opposite*, *whorled*, and *alternate leaves*.

VERY IMPORTANT PRECAUTION

The beginner will be apt, on meeting a plant with leaves arranged as in Fig. 27, to mistake it for a case of opposite leaves.

HOW TO USE THE CHARTS

In point of fact what appears to be a branch on either side with opposite leaves on it is really the stem (rachis) of a compound leaf made up of five leaflets. This can be told by noting that the leaflets are *all on the same plane*.

FIG. 27



TWO COMPOUND LEAVES

It is true that most of the leaflets are opposite, but it is the leaves we are to notice, whether they are opposite, alternate, or from root only, not the leaflets. There are really only two leaves in Fig. 27; they are alternate (and compound).

PART I

FLOWERS

IMPORTANT PRECAUTIONS

LEAVES growing from the root are not classed as either opposite or whorled, but are included under otherwise than opposite or whorled.

“Flowers solitary” does not necessarily mean that there is only one flower on the plant. It means that each flower is separately placed.

A “flower-head,” as that of the Dandelion, Daisy, or Clover, is classed as a single flower.

When a single measurement is given, it indicates the average, not the exact size.

When in doubt which of two groups, or which of two colors, to select, *try both*.

Do not overlook those flowers which are referred to at the end of one group to be found in another.

When in doubt what a word means, consult the glossary at the end of the book.

Failing to find a flower by the chart, look through the pictures in order, beginning at the point where in doubt. For example, suppose the flower is yellow and the leaves are plainly opposite, but you are uncertain about the form of the flower-parts, look through all the yellow flowers in the class “Plants with opposite leaves;” if there is a doubt between yellow and white, look through that class in both colors.

The term shrub is applied, not only to a bush of considerable size, but to a low plant, such as Steeple Bush, if it has a woody stem.

YELLOW OR YELLOWISH FLOWERS

CHART OF YELLOW OR YELLOWISH FLOWERS

Directions.—First note whether plant falls in Class I, II, III, or IV, then follow out to right. When a group-number is reached, turn to page indicated, and look through the group.

Class I.—Plants with leaves opposite ¹ { Flowers with five distinct petals ²=Group I, p. 8
Flowers with five-lobed corolla ²=Group II, p. 12
Flowers with two-lipped corolla ²=Group III, p. 16
Flowers otherwise than above=Group IV, p. 18

Class II.—Plants with leaves whorled³=Group V, p. 22

Class III.—Plants with leaves neither { Leaves compound ⁴ or dissected { Flowers in umbel⁵=Group VI, p. 24
opposite nor whorled { Leaves simple, and not dissected, see B, below
Flowers not in umbel, see A, below

Class IV.—Plants with no leaves=Group XVI, p. 76

A { Leaves dissected=Group VII, p. 26
Leaves with not over five leaflets=Group VIII, p. 26
Leaves some or all with over five leaflets=Group IX, p. 32

B { Leaves mostly from root only { Flowers composite⁶=Group X, p. 36
Flowers not composite=Group XI, p. 38
Leaves alternate { Flowers composite=Group XII, p. 42
Flowers with five petals, ² or five-lobed corolla ²=Group XIII, p. 60
Flowers with four petals=Group XIV, p. 66
Flowers otherwise than above=Group XV, p. 70

¹ Arranged in pairs, *i.e.*, opposite each other on the stem, not at the root.

² The parts ordinarily giving the flower its distinctive color.

³ Three or more at the same level, *circling the stem*, not at the root.

⁴ Made up of similar leaflets, *all on the same plane*, arranged pinnately, as in Sumach, or palmately, as in Clover.

⁵ With stalks rising from a common point, as in Queen Anne's Lace.

⁶ The apparently single flower made up of many florets inclosed in an "involucre," as Daisy, Dandelion, and Golden-rod.

THE FLOWER-FINDER

YELLOW OR YELLOWISH FLOWERS

GROUP I

Leaves opposite. Flowers with five distinct petals.

Common St. John's-wort (*Hypericum perforatum*). St. John's-wort family. June to September.

A perennial weed growing freely by the roadside and in the fields. The plant is very leafy, generally under two feet high. The flowers are numerous, clustered at the top, and on stalks from the axils of the leaves. The blossom is nearly an inch broad, with five pointed sepals, five irregularly rounded petals, much longer than the sepals, and many prominent stamens. The petals have tiny black dots on their margins. The leaves are under an inch in length, narrowly oblong, dotted, not toothed, growing directly on the stem (sessile). Dry ground. Wort means plant or herb; its use is practically limited to compound words.

"Her companions were carrying, according to custom, wreaths of vervain, midsummer rush, St. John's-wort, and motherwort."—*Besant*.

Hypericum is an extensive genus, containing twenty-four species in northeastern America. Besides those on the page following there is, *e.g.*, Great St. John's-wort (*H. ascyron*), sometimes six feet high, found about Lake Champlain and to the westward. Creeping St. John's-wort (*H. adpressum*) with simple stem and ascending leaves, is found in wet places in eastern Massachusetts. Shrubby St. John's-wort (*H. prolificum*) is found in New Jersey, South and West.



ST. JOHN'S-WORT
(*Hypericum perforatum*)

YELLOW OR YELLOWISH FLOWERS

Small-flowered St. John's-wort (*Hypericum mutilum*).

St. John's-wort family. July, August.

This is a more delicate and rarer plant than Common St. John's-wort. An annual, having *flowers not over one-sixth of an inch* in diameter. Low land, blooming from July.

Pale St. John's-wort (*Hypericum ellipticum*). St. John's-wort family. July, August.

A delicate, generally unbranched species (perennial), with maximum height of one foot and a half. The light yellow flowers, similar to those of the other members of the family, measure one-half inch across and are few in the cluster. The *leaves* are *oval* or *elliptic*, blunt-pointed, without stalks. Borders of ponds and damp places. Spotted St. John's-wort (*H. punctatum*) is similar, but there are black lines on the back of the petals.

Canadian St. John's-wort (*Hypericum canadense*). St. John's-wort family. July, August.

An annual or perennial species averaging a foot high, with flowers not over a quarter inch broad; stamens five to ten, styles three. The leaves are very narrow, from a half to two inches in length, with blunt ends. *The pods are dark-red, larger than the flowers.* Sandy ground.

Orange-grass (*Hypericum gentianoides*). St. John's-wort family. June to September.

An upright annual with delicate branches, varying in height from a few inches to a foot and a half. The little flowers, about a twelfth of an inch broad, grow directly on the branches. Leaves tiny, growing close to the stem. Sandy soil.

See also, in Group II, YELLOW LOOSESTRIPE, FRINGED LOOSESTRIPE, and MONEYWORT, whose corolla lobes may easily be mistaken for separate petals.



ORANGE-GRASS
(*Hypericum gentianoides*)



CANADIAN ST JOHN'S-WORT
(*Hypericum canadense*)



PALE ST JOHN'S-WORT
(*Hypericum ellipticum*)



SMALL-FLOWERED ST JOHN'S-WORT
(*Hypericum mutilum*)

YELLOW OR YELLOWISH FLOWERS

GROUP II

Leaves opposite. Flowers with five-lobed corolla.

Yellow Loosestrife (*Lysimachia terrestris*). Primrose family. July, August.

A perennial, not over two feet high. The flowers are in a long, open raceme, each on a slender flower-stalk; the flower (one-third inch broad) has a five-pointed corolla and reddish centre. The leaves are narrowly lance-shaped, entire. Common in low ground. The generic name is said to have been chosen in honor of King Lysimachus of Sicily.

Smooth False Foxglove (*Gerardia virginica*). Figwort family. July, August.

An upright perennial, three to six feet high. The flowers are arranged along the stem practically in raceme, but with very short stalks. Each flower has a yellow, tubular corolla, about two inches long, with five unequal rounded lobes. The upper leaves have edges sometimes smooth and sometimes cut, the lower commonly deeply cut. Rich woods. The generic name of this plant was given in honor of the celebrated author of "The Herball, or Generall Historie of Plantes. Gathered by John Gerarde of London, Master in Chirurgerie."

Downy False Foxglove (*Gerardia flava*). Figwort family. July, August.

This is similar to the Smooth False Foxglove, but its stems are covered with fine down, it is seldom branched, and the leaves are less cut. Open woods.

Fern-leaved False Foxglove (*Gerardia pedicularia*). Figwort family. August.

This annual (or biennial) is similar to the other False Foxgloves, but the leaves are *so much cut* as to suggest its name. Even the lobes of the calyx are finely cut. Dry woods.



YELLOW LOOSESTRIFE
(*Lysimachia terrestris*)



SMOOTH FALSE FOXGLOVE
(*Gerardia virginica*)



DOWNY FALSE FOXGLOVE
(*Gerardia flava*)



FERN-LEAVED FALSE FOXGLOVE
(*Gerardia pedicularia*)

YELLOW OR YELLOWISH FLOWERS

Fly Honeysuckle (*Lonicèra canadensis*). Honeysuckle family. May, June.

A branching shrub, averaging four feet. *Flowers in pairs* in axils, on stalks. Corolla tubular or bell-shaped, three-quarters of an inch long, with five rounded lobes. Leaf egg-shaped, blunt-pointed, short-stalked, with finely hairy margin. Woods and roadsides.

Bush Honeysuckle (*Diervilla Lonicèra*). Honeysuckle family. June.

A shrub with average height of three feet. *Flowers generally in threes* in the axils and at the top; corolla tubular, five-lobed; stamens five, stigma globular. Leaves sharply pointed, egg-shaped, and toothed. Found on rocks.

Fringed Loosestrife (*Steironèma ciliatum*). Primrose family. June, July.

A perennial, a foot and a half high, or over, bearing small yellow flowers (one-half to one inch broad) on delicate stalks in the axils, having five-cleft calyx and corolla and a red centre. Leaves broadly lance-shaped, sharp-pointed, rounded at the base, with fringed stalks. Low ground.

Moneywort (*Lysimachia Nummularia*). Primrose family. June to September.

A trailing vine with bright-yellow flowers, on slender stalks in the axils. Flowers an inch broad with apparently five rounded petals, though, properly speaking, these are lobes of a united (gamopetalous) corolla. Leaves oval, without teeth, and short-stalked. Damp ground, where

“ The money-vine with clinging myrtle weaves
A thick dark carpet, starred with blue and gold.”

—Margaret Deland.



BUSH HONEYSUCKLE
(*Diervilla lonicera*)



FLY HONEYSUCKLE
(*Lonicera canadensis*)



MONEYWORT
(*Lysimachia nummularia*)



FRINGED LOOSESTRIFE
(*Steironema ciliatum*)

YELLOW OR YELLOWISH FLOWERS

GROUP III

Leaves opposite. Flowers with two-lipped corolla.

Horse Balm (*Collinsonia canadensis*). Mint family. July to September.

An upright branching perennial with stout, somewhat four-sided stem, two to five feet high. The small flowers, credited with a lemon odor, are borne in an open cluster of racemes at the top. The bright-yellow corolla is about a half-inch in length and has two lips, one lobed, the other generally fringed; two prominent stamens; style divided. The leaves are large, coarse, toothed, pointed, somewhat egg-shaped; the lower sometimes nearly a foot in length, with stalks. Rich woods.

Golden Hedge Hyssop (*Gratiola aurea*). Figwort family. June to September.

A delicate annual, four to twelve inches high. Flowers bright-yellow, one-half inch long, in axils; corolla cylindrical, somewhat two-lipped, two stamens with anthers, other two without, or wanting. Leaves oblong to linear, tending to clasp the stem. Sandy shores. Clammy Hedge Hyssop (*Gratiola virginiana*) is similar, but *more branching and with toothed leaves*. Damp ground. The Latin name was meant to show a healing grace.

Cow Wheat (*Melampyrum lineare*). Figwort family. July, August.

A common, insignificant annual with slender branching stem, generally not over a foot high, in no way suggesting wheat. Flowers very small, whitish with pale yellow tip, solitary in the axils; calyx with (four) pointed lobes, corolla of two lips. Leaves narrowly lance-shaped, pointed, short-stalked, sometimes with irregular sharp teeth near the base. Open woods.



HORSE BALM
(*Collinsonia canadensis*)



GOLDEN HEDGE HYSSOP
(*Gratiola aurea*)



COW WHEAT
(*Melampyrum lineare*)

YELLOW OR YELLOWISH FLOWERS

GROUP IV

Leaves opposite. Flowers not with five petals, five-lobed corolla, or two-lipped corolla.

Wild Sunflower (*Helianthus decapetalus*). Composite family. August to September.

A perennial, one and one-half to several feet high. The flowers, two inches broad, have ten or twelve neutral rays and a yellow centre (disk) of tubular florets with pistils and stamens (perfect). The involucre (the green support which, in the Composite family, holds the flower-head) has long and spreading bracts. The leaves, mostly opposite, are three inches long, broadly lance-shaped, rough, more or less three-nerved, with leaf-stalks.



TUBER, FLOWER-HEAD, DISK-FLOWER,
RAY-FLOWER AND LOWER LEAVES
OF JERUSALEM ARTICHOKE

Moist banks. Woodland Sunflower (*H. divaricatus*) is similar but its leaves are *attached directly to the stem*. Dry woods, blooming earlier.

Jerusalem Artichoke (*H. tuberosus*), a remnant of Indian horticulture, is *six feet high or over*, otherwise generally similar. The hairy stem rises from a root-stalk which bears *edible tubers*. Its lower leaves, opposite, with leaf-stalks, average six inches long, its flowers two or three inches broad. Moist ground.



WILD SUNFLOWER
(*Helianthus decapetalus*)

YELLOW OR YELLOWISH FLOWERS

Bur Marigold. Beggar-ticks (*Bidens frondosa*). Composite family. July to October.

A branching annual, one to several feet high. The flower-head (one-half to three-fourths inch broad) is made up of yellowish tubular flowers, with pistils and stamens, and is surrounded apparently by green leaves (involucre). The leaves have *generally three, sometimes five leaflets* with stalks, are broadly lance-shaped, coarsely toothed, and long-pointed. The two downwardly barbed "arms" of the seeds cause them to stick to the clothing. Wet places.

Smaller Bur Marigold. Stick-tight (*Bidens cernua*). Composite family. July to September.

An annual, eight inches to two feet high, nearly smooth, with small heads of yellowish tubular flowers, with or without yellow rays, neutral (without pistils and stamens), and not over one-half inch long. Leaves lance-shaped and unevenly toothed. Seeds generally with four arms.

Larger Bur Marigold (*Bidens laevis*). Composite family. August to October.

An annual, two or three feet high. Nodding flower-heads with *large yellow neutral rays* an inch long. The leaves are without stalks, lance-shaped, toothed, thin, pinnately veined. Seeds generally with two, sometimes with three or four arms.

Swamp Beggar-ticks (*Bidens connata*). Composite family. September.

An upright annual, with purple stem, generally branching, six inches to several feet high. The heads are a half inch to an inch and a half broad, practically without rays. The leaves are lance-shaped, coarsely toothed, and stalked. The seeds have two to four arms. Wet ground.



SMALLER BUR MARIGOLD
(*Bidens cernua*)



BUR MARIGOLD
(*Bidens frondosa*)



WAMP BEGGAR-TICKS
(*Bidens connata*)



LARGER BUR MARIGOLD
(*Bidens laevis*)

YELLOW OR YELLOWISH FLOWERS

GROUP V

Leaves whorled.

Indian Cucumber-root (*Medèola virginiana*). Lily family.
May, June.

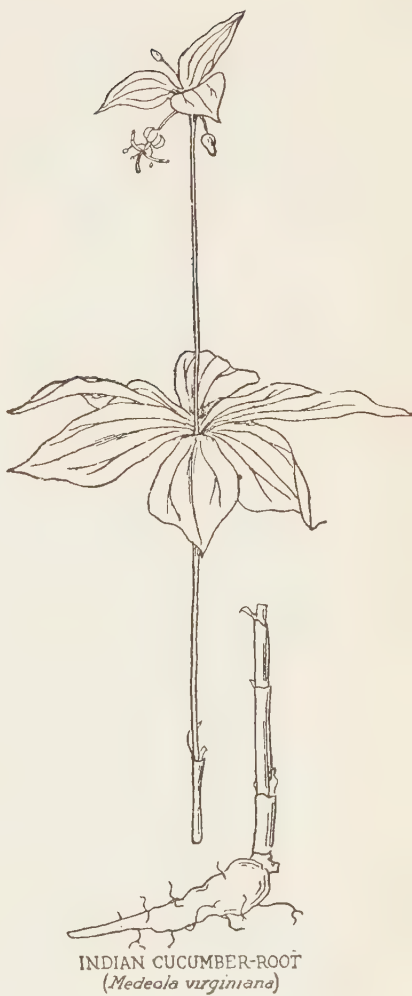
An upright stem, about two feet high, rises from a horizontal white root-stalk, perhaps once used as food. There are a few inconspicuous yellowish drooping flowers growing in an umbel (with stalks starting from the same place) at the top of the stem. They have three sepals and three petals, less than a half-inch long, all alike, pale yellowish-green, forming what is known as a "perianth," and all curving backward. There are six stamens and three hair-like spreading styles. The leaves are in two whorls; the lower whorl has five to nine inversely egg-shaped to lance-shaped, pointed leaves, without stalks; the upper generally only three, egg-shaped, pointed. The fruit consists of noticeable large blue berries. The plant was supposed to have great medicinal value and is named, doubtless on this account, from Medea, the famous sorceress of Greek legend. Rich woods.

Meadow Lily (*Lilium canadense*). Lily family. June, July.

An upright plant, two to several feet high. The flowers (two or three inches long) are nodding, bell-shaped, with six long spreading points, yellowish with brown spots. There are six or seven leaves in a whorl, lance-shaped, not stalked. Meadows. The fruit that replaces the drooping flower later in the season stands stiffly upright, giving the plant quite a different appearance.



Cucumber-root (*Meddola virginiana*)



YELLOW OR YELLOWISH FLOWERS

Four-leaved Loosestrife (*Lysimachia quadrifolia*). Primrose family. June to August.

An upright perennial, with maximum height of three feet. The flowers (one-fourth to one-half inch broad) are borne on long stalks in the axils; the five lobes of the yellow corolla are pointed; stamens and pistil prominent. Leaves whorled in fours or fives (also twos, threes, and sixes), egg-shaped to lance-shaped, pointed, without stalks. Open woods.

GROUP VI

Leaves alternate, compound. Flowers in umbel, *i.e.*, with stalks starting from the same place on the stem.

Wild Parsnip (*Pastinaca sativa*). Parsley family. June to September.

An upright biennial herb, two to several feet high, with *grooved stem*. Tiny flowers, with five petals, in compound umbels, the final umbels under one-half inch broad. The leaflets average two inches long, *arranged pinnately*, somewhat egg-shaped, blunt-pointed, deeply cut and toothed. Common, by roadsides.

Early Meadow Parsnip (*Zizia aurea*). Parsley family. May, June.

A perennial, resembling Wild Parsnip, but not so tall; leaves *doubly compounded*, the leaflets irregularly lance-shaped.

Crowtoe (*Lotus corniculatus*). Pulse family. June to September.

A perennial, with slender branching stem bearing several-flowered umbels of papilionaceous flowers, yellow, tinged with crimson, the corolla one-half inch long. Pods suggestive of a bird's claw. The leaves have three leaflets, averaging about half an inch in length. Seaports. This is the Crowtoe of Milton:

“Bring the rathe primrose that forsaken dies,
The tufted crow-toe and pale jessamine.”



FOUR-LEAVED LOOSESTRIFE
(*Lysimachia quadrifolia*)



WILD PARSNIP
(*Pastinaca sativa*)



EARLY MEADOW PARSNIP
(*Zizia aurea*)



CROWTOE
(*Lotus corniculatus*)

YELLOW OR YELLOWISH FLOWERS

Celandine (*Chelidonium majus*). Poppy family. April to September.

A biennial, a foot or two high. Flowers (one-half inch broad or over) with two sepals (quickly falling), four petals, numerous stamens. The leaves are pinnately divided into broad leaflets, with rounded teeth and irregular lobes. Common, roadsides, etc.

GROUP VII

Leaves (alternate) dissected.

Tansy (*Tanacetum vulgare*). Composite family. July to September.

A familiar roadside perennial, sometimes three feet high. The flowers form large, flat-topped clusters; the flower-heads making up these clusters (one-fourth inch or more across) are made up of many tiny tubular flowers without rays, the inner perfect, outer pistillate. Dry ground.

Bladderwort (*Utricularia vulgaris*). Bladderwort family. June to August.

A plant which must be sought. Its tiny flower appears above the water on the end of a delicate stalk. The calyx and corolla are split, the latter bearing a spur. The submerged leaves bear many little bladders.

GROUP VIII

Leaves (alternate) compound, not over five leaflets. Flowers not in umbel.

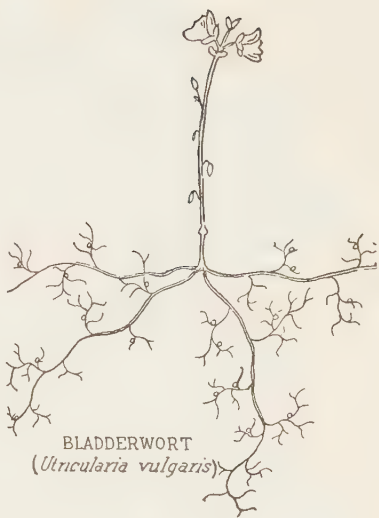
The Buttercups and Crowfoot are found on p. 62 et seq.

Common Cinquefoil (*Potentilla canadensis*). Rose family. April to August.

A low plant with slender stem, sometimes erect, oftener acting as a runner. Flowers generally not over one-half inch broad, with five rounded petals, suggesting yellow strawberry blossoms; five bracts alternate with five calyx-lobes. The leaves are palmately divided into five sharply-toothed leaflets. Dry ground everywhere.



GELANDINE
(*Chelidonium majus*)



BLADDERWORT
(*Utricularia vulgaris*)



TANSY
(*Tanacetum vulgare*)



COMMON CINQUEFOIL
(*Potentilla canadensis*)

YELLOW OR YELLOWISH FLOWERS

Yellow Wood Sorrel (*Oxalis stricta*). Wood Sorrel family.
April to September.

A low, branching, delicate annual or perennial, flowers generally two or three together on long stalks; five petals (under one-half inch long), reddened at the base. Three leaflets palmately arranged on a long stalk, inversely heart-shaped, shutting when handled. Common in woods and open places.

Silvery Cinquefoil (*Potentilla argentea*). Rose family. May to September.

An upright plant, generally under a foot, tufted, with delicate stem. Flowers (one-fourth inch) clustered, with rounded petals, five calyx-lobes, and five bracts alternating. Leaves, excepting the upper, with stalks and five (palmate) *leaflets*, wedge-shaped at the base and deeply toothed at the apex; *white underneath*. Dry ground, everywhere.

Rough Cinquefoil (*Potentilla monspeliensis*, var. *norvegica*).
Rose family. June to September.

A coarsely hairy, branching weed, annual or biennial, one to three feet high. Flowers, not over one-half inch broad, in leafy clusters, with five petals, broad at the end; sepals apparently ten, really five with five bracts. Leaves divided into *three coarsely toothed leaflets*. Dry ground. Common.

Yellow Avens (*Geum strictum*). Rose family. June to August.

A hairy perennial, averaging three and one-half feet. The flowers, under one inch broad, have five broad, inversely egg-shaped petals and five sepals, bent back. The stem-leaves have short stalks, or none, and are made up of three to five leaflets, toothed and pointed. *The root-leaves have long stalks and five to seven leaflets* pinnately arranged. Meadows.



YELLOW WOOD SORREL
(*Oxalis stricta*)



SILVERY CINQUEFOIL
(*Potentilla argentea*)



ROUGH CINQUEFOIL
(*Potentilla monspeliensis*, var. *norvegica*)



YELLOW AVENS.
(*Geum strictum*)

YELLOW OR YELLOWISH FLOWERS

Hop Clover. Yellow Clover (*Trifolium agrarium*). Pulse family. June to September.

A branching annual, averaging a foot high. The tiny papilionaceous flowers form heads. Nine stamens united, one separate. The finely toothed leaflets are oblong, arranged palmately on leaf-stalk. Common in fields and by roadsides. Low Hop Clover (*T. procumbens*) has the middle leaflet stalked.



LOW HOP CLOVER
(*Trifolium procumbens*)



YELLOW CLOVER
(*Trifolium agrarium*)

Yellow Sweet Clover (*Melilotus officinalis*). Pulse family. June to August.

An upright annual or biennial, averaging three feet. The flowers are tiny, papilionaceous, fragrant, in long, slender, many-flowered racemes. The petals are about equal; nine stamens are united in a tube, one is separate. The leaflets are blunt-pointed and vary from inversely egg-shaped to oblong. Waste ground everywhere.



YELLOW SWEET CLOVER
(*Melilotus officinalis*)

YELLOW OR YELLOWISH FLOWERS

Hairy Bush Clover (*Lespedeza hirta*). Pulse family. Late summer and autumn.

An upright herb, two or three feet high, with stout, hairy stem, unbranched except sometimes at the top. The insignificant papilionaceous flowers are packed in dense heads (one-half to one and one-half inches) at the top, yellowish, sometimes with purple spots. Nine stamens in a group, one separate (diadelphous). The leaflets resemble those of common clover. Dry ground. Named after Lespedez, a Florida governor.

Wild Indigo (*Baptisia tinctoria*). Pulse family. June to September.

A branching perennial one and a half to four feet high. The papilionaceous flowers, half an inch in length, are arranged in short, open racemes at the ends of the branches; the ten stamens are distinct. The three leaflets, averaging an inch long, rounded at the end and narrow at the base, rise from a short leaf-stalk, and finally turn black. The isolated round bushes of *Tinctoria* covered with yellow blossoms present quite a different picture from the low spreading masses of *Genista* for which they are often mistaken. Common in dry soil. The name is taken from *baptizo*, I dip, and *tinctorius*, concerned in dyeing.

GROUP IX

Leaves (not opposite nor whorled) compound, some or all with over five leaflets.

Agrimony (*Agrimonia gryposepala*). Rose family. June to August.

An upright, branching perennial, one and one-half to several feet high. The flowers (one-fourth inch broad) are in long, slender, spike-like racemes; the calyx is top-shaped; the five petals are small. The lower leaves are made up of about seven large leaflets, toothed, set directly on the leaf-stem; between these leaflets are interspersed small ones of different sizes. Woods and roadsides.



HAIRY BUSH CLOVER
(*Lespedeza hirta*)



WILD INDIGO
(*Baptisia tinctoria*)



AGRIMONY
(*Agrimonia gryposepala*)

YELLOW OR YELLOWISH FLOWERS

Silver Weed (*Potentilla Anserina*). Rose family. June to August.

A perennial, extending by runners, with flowers (two-thirds to one inch broad) like buttercups, on long stalks; calyx five-lobed, the lobes alternating with bracts as in the other *potentillas*. Leaves from the root, with ten to twenty or more leaflets, oblong, toothed, silky beneath. Meadows. The name is from the diminutive of *potens*, strong, meaning medicinally.

Goat's Rue (*Tephrosia virginiana*). Pulse family. June, July.

A perennial, sometimes reaching two feet. The flowers (one-half to three-fourths inch long) are papilionaceous, in terminal clusters, "greenish, cream-yellow standard, purplish-rose wings and curved keel of greenish-yellow tinged with rose" (Blanchan). Ten stamens united in a tube, or one separate; many linear-oblong leaflets. Sandy ground. Southern New England, West and South.

Partridge Pea (*Cassia Chamæcrista*). Pulse family. July to September.

A branching annual, a foot or two in height, with flowers over an inch broad, solitary or few together, the five petals rounded, unequal, and sometimes with purple spots. There are *many pairs of narrowly oblong leaflets (perhaps over twenty)*, less than an inch long. Common southward in dry ground, not found in northern New England.

Wild Senna (*Cassia marilandica*). Pulse family. July, August.

A branching perennial, several feet high, resembling Partridge Pea, but having larger leaflets and smaller flowers, though the flower of Partridge Pea appears smaller in the greatly reduced cut. *Six to eight pairs of lance-shaped to oblong leaflets*, an inch or two in length, pinnately arranged. Wet ground.



SILVER WEED
(*Potentilla Anserina*)



GOAT'S RUE
(*Tephrosia virginiana*)



WILD SENNA
(*Cassia marilandica*)



PARTRIDGE PEA
(*Cassia Chamæcrista*)

YELLOW OR YELLOWISH FLOWERS

GROUP X

Leaves mostly from the root only, simple. Flowers composite.

Coltsfoot (*Tussilago Farfara*). Composite family. April to June.

A perennial whose blossoms are gone when the leaves appear. The light-yellow flowers, solitary at the end of stout, scaly stems (rising from horizontal root-stalks with bracted runners), resemble dandelions, with sterile but perfect disk-flowers and pistillate ray-flowers. Leaves rounded, long-stalked, *woolly underneath*, with pointed lobes and teeth. Wet places. The plant is named from *tussis*, a cough.

Fall Dandelion (*Leontodon autumnalis*). Composite family. June to November.

Dandelions with small heads on slender stalks, sometimes two feet high, *forking at the top*, hence once called "Branchy" Dandelion (Culpepper, 1651). Leaves deeply toothed or cut. Common everywhere.

Dandelion (*Taraxacum officinale*). Composite family. All the year.

The common dandelion of the lawn, a perennial, with strap-shaped "perfect" florets, of which Lowell wrote:

"My childhood's earliest thoughts are linked with thee."

The South Wind, it seems, was enamoured of this slender maid with yellow locks, but he was so slow in his approach that when he arrived they had turned to white and were so lightly poised that when he sighed they blew away (Skinner). Those who see beauty in the familiar recognize the charm of these bright yellow blossoms scattered over the lawn in the spring. Red-seeded Dandelion (*Taraxacum erythrospermum*) has a smaller flower, and its leaves are deeply cut into very narrow divisions.



YELLOW OR YELLOWISH FLOWERS

King Devil (*Hieracium pratense*). Composite family.
June to August.

A perennial with slender stem, one and one-half feet high, bearing one to three leaves. The basal leaves have fine prickles on both sides. The flower-heads resemble small black-hairy dandelions clustered at the top. Not south of New York. The specimen drawn was found in eastern Maine, along with *H. floribundum*, with only one leaf on the stem near the base and leaves only hairy on their edges. From the Greek for hawk.

Rattlesnake-weed (*Hieracium venosum*). Composite family. May to October.

This species has a leafless stem averaging two feet. The flower-heads, like small dandelions, are in a loose open cluster at the end of the forking stem. The leaves, several inches long with hairy edges, are almost without teeth and have *purple marking*; they are somewhat woolly underneath. Found in dry woods.

GROUP XI

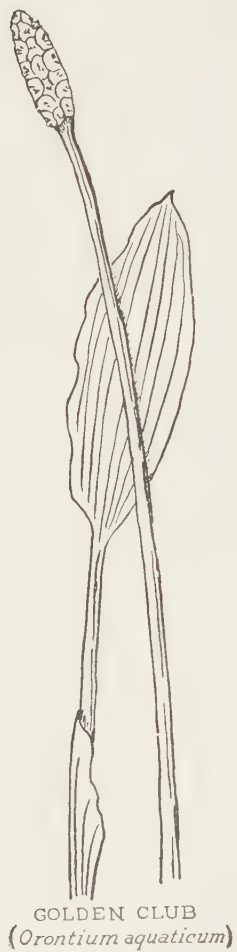
Leaves from root only, simple. Flowers not composite.

Golden Club (*Orontium aquaticum*). Arum family. April, May.

A leafless stem, six inches to two feet long, protrudes from the water and ends in a spike (spadix) an inch or two long, of minute perfect flowers, with a spathe that soon withers. The lower flowers have six scale-like sepals and six stamens; the upper have four of each. The leaf has a parallel-veined blade, sometimes a foot long, without teeth, narrowing to a long leaf-stalk at the base. Ponds. Named from the river Orontes in Syria.

Blackberry Lily (*Belamcanda chinensis*). Iris family. June, July.

A perennial, one and one-half to three feet high, its orange-yellow flower, purple-spotted, having three petals, three sepals, and three stamens united at the bottom. Open woods, etc. Connecticut, South and West. (See cut on p. 361.)



YELLOW OR YELLOWISH FLOWERS

Spatter-dock. Cow Lily (*Nymphaea advena*). Water-lily family. April to September.

A stout stem protruding from the water bears a yellow flower, two inches across, with five or six thick sepals, yellow (or green outside); the numerous petals are stamen-like, the pistil is large. The leaves are broadly heart-shaped, have long stems, and float upon the surface. Still water. The shape is suggestive of *Primula veris*, common in English meadows, "where cowslips and the nodding violet grows," and the Spatter-dock is sometimes likewise called Cowslip.

Dog's-tooth Violet. Yellow Adder's-tongue (*Erythronium americanum*). Lily family. March to May.

An upright plant about eight inches high, from a solid bulb (corm). The flowers are solitary on long stalks, and have six pointed yellow divisions of the perianth, nearly an inch long, sometimes spotted near the base. The leaves are lance-shaped. Rich soil. From the Greek word meaning red.

Yellow Clintonia (*Clintonia borealis*). Lily family. May, June.

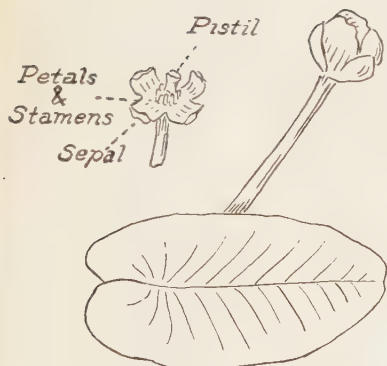
A perennial with leafless stem (scape) averaging not more than a foot in height, rising from a long slender root-stalk and topped by an umbel of several bell-shaped yellowish flowers, nearly an inch long, with six spreading perianth-segments, and six prominent stamens. The leaves, shorter than the stem, are large, oblong, or egg-shaped, without teeth. Named after Governor Clinton of New York.

Yellow Star Grass (*Hypoxis hirsuta*). Amaryllis family. May to October.

A delicate upright plant a few inches high with leafless slender stem (scape) bearing one to four flowers. The plant rises from a solid bulb (corm) with many rootlets. The perianth of the flower has six pointed divisions, under one-half inch long, yellow inside, greenish outside; stamens six. The leaves are linear, long, with fine hairs. Common in meadows and open woody places.



Dog-tooth Violet (*L. torreyi americanum*)



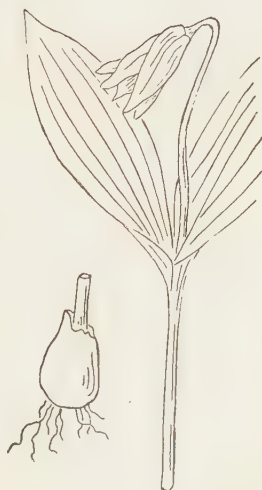
SPATTER-DOCK
(*Nymphaea advena*)



YELLOW STAR-GRASS
(*Hypoxis hirsuta*)



YELLOW CLINTONIA
(*Clintonia borealis*)



DOG'S-TOOTH VIOLET
(*Erythronium americanum*)

YELLOW OR YELLOWISH FLOWERS

Yellow-eyed Grass (*Xyris flexuosa*). Yellow-eyed Grass family. July, August.

An upright perennial, about a foot high, with delicate flowerless stem bearing at the top a small egg-shaped head (one-fourth to one-third inch high) of bracts from which rise the little flowers. The flowers have three spreading yellow petals with claws, three stamens. The leaves are linear, twisted. The root is bulbous. Found in bogs.

GROUP XII

Leaves alternate, simple. Flowers composite.

The Golden-rods are found on page 50 et seq.

Rough Hawkweed (*Hieracium scabrum*). Composite family. July to September.

A perennial with *rough, hairy, leafy stem* one to three feet high. The flower-heads, resembling very small dandelions, with perfect, strap-shaped florets, are borne on stout and stiffly spreading branches at the top of the somewhat zigzag stem. Leaves elliptic to inversely egg-shaped, without teeth, hairy, the *lowest with stalks*. Very common in dry woods. Hieracium is from the Greek word meaning hawk; scabrum means rough.

Canada Hawkweed (*Hieracium canadense*). Composite family. July to September.

An upright perennial with unbranched stem, bearing many lance-shaped leaves, and at the top a loose cluster of flowers resembling small dandelions (with perfect, strap-shaped florets) on separate stalks. The leaves, not over three inches by one inch, have practically no stalks and sometimes clasp the stem; they are sparingly and sharply toothed. Open woods, not quite so common as Rough Hawkweed.



CANADA HAWKWEED
(*Hieracium canadense*)



ROUGH HAWKWEED
(*Hieracium scabrum*)



YELLOW EYED GRASS
(*Xyris flexuosa*)

YELLOW AND YELLOWISH FLOWERS

Annual Sow Thistle. Hare's Lettuce (*Sonchus oleraceus*).

Composite family. May to October.

An annual with flowers like small dandelions. The practically smooth stem is one to eight feet or more high. Flower-heads light-yellow, on long stalks, loosely clustered, florets all perfect; involucre shaped like a broad vase. The leaves suggest Dandelion leaves, lower with stalks, upper clasping the stem. Waste places. Spiny-leaved Sow Thistle (*Sonchus asper*) is similar but with leaves less cut and more spiny. Milk Thistle (*Sonchus arvensis*), a perennial, is similar to Sow Thistle but sometimes reaches ten feet, and its lower leaves have not the long leaf-stalks.

Elecampane (*Inula Helenium*). Composite family.

August.

A branching perennial with stout stem, several feet high, and flower-heads two to four inches across, with narrow, pistillate rays, and yellow, later dark, centre of perfect, tubular florets. The leaves are large, coarse, light-green, woolly on the under surface; those from the root egg-shaped and stalked, the others clasping the stem. Mathews well describes the flower as "showy but somewhat dishevelled." Roadsides and fields.

Golden Ragwort (*Senecio aureus*). Composite family.

May to July.

An upright perennial with simple stem averaging two feet. The flower-heads (considerably under an inch broad), with yellow pistillate rays, are on long stalks, terminal and axillary. The leaves are thin, those from the root simple and round or heart-shaped on long stalks; the lower stem-leaves are pinnately divided, with a large lobe at the end, the upper are lance-shaped, pinnately cut, without stalks or partly clasping. Common in fields. The name, from *senex*, old man, doubtless referred to the hoary appearance when in fruit.



YELLOW AND YELLOWISH FLOWERS

Green-headed Cone-flower (*Rudbeckia laciniata*). Composite family. July to September.

A perennial, tall and branched. The large flower-heads have a greenish disk, and yellow rays one and one-half inches long, notched, drooping. The lower leaves, on long stalks, are irregularly parted, with lobes again irregularly cut; the upper are smaller and sometimes simple. Thickets. Western Quebec, West and South.

Panicled Hawkweed (*Hieracium paniculatum*). Composite family. July to September.

A perennial with slender branching stem, under three feet high. The flower-heads are like minute dandelions. There is a single row of long linear bracts in the involucre, with other short ones. The leaves are lance-shaped, somewhat toothed. Open woods.

Golden Aster (*Chrysopsis mariana*). Composite family. August, September.

A perennial with silky stem, a foot or two in height. The large flower-heads (three-fourths to one inch broad) in cluster (corymb), have many yellow rays and yellow disks. Leaves without stalks, narrowly oblong, lower somewhat spoon-shaped. Dry ground, southern New York and southward. Sickie-leaved Golden Aster (*C. falcata*) has a stiff, woolly, curving stem, under a foot high, with stiffly curving, narrow leaves. Sandy soil, e.g., on Cape Cod. Named from the Greek for gold.

Black-eyed Susan (*Rudbeckia hirta*). Composite family. June to September.

Biennial or annual, maximum height three feet, with stout hairy stem. The flower-head (two to four inches broad) has about twelve yellow neutral rays surrounding a conical brown disk of perfect tubular flowers. The somewhat woolly leaves are not toothed; the upper are oblong or lance-shaped and have no stalks, the lower are somewhat spoon-shaped, with stalks. Common in fields. Named after Rudbeck, the botanist.



GREEN-HEADED CONE-FLOWER
(*Rudbeckia laciniata*)



SICKLE-LEAVED GOLDEN ASTER
(*Chrysopsis falcata*)



BLACK-EYED SUSAN
(*Rudbeckia hirta*)



PANICLED HAWKWEED
(*Hieracium paniculatum*)

YELLOW OR YELLOWISH FLOWERS

Sneezeweed. Swamp Sunflower (*Helenium autumnale*).

Composite family. August to October.

A showy perennial, sometimes reaching six feet. The flower-heads (one to two inches broad) have drooping, wedge-shaped, notched, pistillate rays. The disk (of perfect flowers) is globular, yellow. The leaves are mostly toothed, lance-shaped to egg-shaped. Banks and wet ground, sometimes cultivated. If shut up in the house with *Helenium*, one susceptible to "hay fever" will acknowledge the justice of the popular name and quickly consign to the ash-heap its decorative but unfriendly blossom.

Wild Lettuce (*Lactuca canadensis*). Composite family.

June to October.

A branching biennial or annual, four to six feet high or more. The flowers, with strap-shaped, perfect florets, resemble dandelions, not over one-fourth inch broad, in open panicles. The lower leaves are like those of the dandelion, the upper lance-shaped. Rich ground. A rather common species of similar appearance, but may be twice as high and with a *bluish* to *cream-colored* blossom, is Blue Lettuce (*L. spicata*). This leafy plant, with large, compact panicle, grows very tall by the roadside near South Harpswell, Maine, and about Woodstock, Vermont. Another not uncommon species is Prickly Lettuce (*L. scariola*) with yellow blossoms, prickly stem, leaves pinnately cut, and *hairy midrib*. The variety *integrata*, more common in eastern New England, is distinguished by its oblong leaves, not deeply cut. This grows in waste places everywhere.



SNEEZEWEED
(*Helenium autumnale*)



WILD LETTUCE
(*Lactuca canadensis*)

YELLOW OR YELLOWISH FLOWERS

Golden-rods

“ And trembles on its arid stalk

The hoar plume of the golden-rod.”—*Whittier*.

The golden-rod is a perennial with little flower-heads made up of tubular and ray flowers, the former generally perfect, the latter pistillate. It will facilitate the recognition of members of this genus to divide them into five classes: Class I, flowers in small flat-topped clusters; Class II, in which the blossoms are in the axils of the leaves; Class III, with leaves on the flowering branches; Class IV, with compact plume; Class V, with the common plume. The following cut shows the five types.



TYPES OF GOLDEN-ROD

CLASS I.—FLAT-TOPPED CLUSTERS

Lance-leaved Golden-rod (*Solidago graminifolia*). Com-
posite family. July to September.

A golden-rod with maximum height of four feet. The small flower-heads, with more than a dozen little rays, are in a flat-topped cluster made up of smaller clusters terminating leafy branches. The leaves are lance-shaped, long, and narrow, with parallel veins and rough edges. Damp ground. Slender Golden-rod (*S. tenuifolia*) is similar, but only reaches a foot and a half, with delicate stem and linear leaves.



LANCE-LEAVED GOLDEN ROD
(*Solidago graminifolia*)

YELLOW OR YELLOWISH FLOWERS

CLASS II.—FLOWERS AXILLARY

Blue-stemmed Golden-rod (*Solidago cæsia*). Composite family. August to October.

A golden-rod with slender, curving, bluish stem a foot or two high, or more, sometimes branching. The little flower-heads, each with four or five tiny spreading rays, are clustered along the stem in the axils of the leaves. This is a very common golden-rod and one easily recognized. In fact there is nothing to confound it with unless *S. latifolia*, a much rarer find. *Solidago cæsia* grows freely along almost any woody roadside, but to find *S. latifolia* for comparison one must take the path perhaps through deeper woods where its stout zigzag stems and broad leaves grow luxuriantly, though not profusely, under the trees.

Broad-leaved Golden-rod (*Solidago latifolia*). Composite family. July to October.

A species resembling the *cæsia*, one to three feet high, but with very broad leaves, a stouter zigzag, angled stem, and with small, close clusters of flower-heads having generally only three or four rays, never over six. Rich woods.



BLUE-STEMMED GOLDEN-ROD
(*Solidago caesia*)



BROAD-LEAVED GOLDEN-ROD
(*Solidago latifolia*)

YELLOW OR YELLOWISH FLOWERS

CLASS III.—PLUMES WITH LEAVES ON THE FLOWERING BRANCHES

Early Golden-rod (*Solidago juncea*). Composite family.
July to November.

A handsome golden-rod, whose stout smooth stems are apt to grow in clumps. The leaves have other small ones in their axils, are somewhat three-veined, and broadly lance-shaped, the lower sharply toothed, the lowest reaching a foot, with prolonged slender bases. Dry ground.

Rough-stemmed Golden-rod (*Solidago rugosa*). Composite family. July to October.



ROUGH-STEMMED GOLDEN-ROD
(*Solidago rugosa*)

A *roughly stemmed*, tall species. The flower-heads have not over nine rays. The leaves are oval, sharply toothed, hairy, and pinnately veined. Common by the roadside and in the open. Elm-leaved Golden-rod (*Solidago ulmifolia*), generally falling in this class, is found in woody places, and has a smooth slender stem, sometimes branching, with maximum height of four feet. The leaves are thin, toothed, and somewhat resemble elm leaves.



EARLY GOLDEN-ROD
(*Solidago juncea*)

YELLOW AND YELLOWISH FLOWERS

CLASS IV.—WITH COMPACT PLUME (THYRSE)

Stout Golden-rod (*Solidago squarrosa*). Composite family.
August to October.

A species noticeable on account of its large flower-heads, its stout stem, and generally bulky appearance. It is common in certain localities, for example, about Poland Spring. The flowers suggest yellow asters, and have about a dozen rays over one-fourth inch long. The lower leaves are very large, sometimes nearly a foot long, sharply toothed, inversely egg-shaped or oval, often with broad leaf-stalk; the upper are much smaller, horizontal, somewhat diamond-shaped, and with wavy edges. Woods and banks.

Downy Golden-rod (*Solidago puberula*). Composite family.
August to September.

A species with maximum height of three feet, with generally smooth and often ruddy stem terminated by a close plume with upright branches. Rays (about twelve) short. The leaves of the stem and base are toothed, those of the stem more or less lance-shaped and without stalks; the lower generally with stalks, more or less spoon-shaped, blunt-pointed, sometimes four inches long.

CLASS V.—COMMON PLUMES

Sharp-leaved Golden-rod (*Solidago arguta*). Composite family. July to September.

A golden-rod with maximum height of four feet; a smooth, angled stem, sometimes ruddy, with leaves more or less lance-shaped and toothed, except the upper ones; the lower are very broadly oval, sharply toothed, sometimes a foot long and several inches broad with long, broad stalks. The flower-heads have about six rays. Thin woods.



SHARP-LEAVED GOLDEN-ROD
(*Solidago arguta*)



DOWNY GOLDEN-ROD
(*Solidago puberula*)



STOUT GOLDEN-ROD
(*Solidago squarrosa*)

YELLOW AND YELLOWISH FLOWERS

Swamp Golden-rod (*Solidago neglecta*). Composite family.
August, September.

A species growing in wet ground, with maximum height of four feet, with smooth stem and lance-shaped leaves, the lower very long, sharply toothed, and with stalks; the upper shorter and less toothed. The flower-heads average five or six rays.

Seaside Golden-rod (*Solidago sempervirens*). Composite family. August to November.

A species found near salt water, sometimes reaching eight feet, generally very much lower, with stout, smooth stem and showy plume. The flower-heads are large, with eight or ten rays. The leaves are thickly set, lance-shaped, without teeth, the lower sometimes a foot long, with stalks.

Gray Golden-rod (*Solidago nemoralis*). Composite family.
July to November.

A low golden-rod, very noticeable, in the open fields and by roadsides of late summer, for its showy one-sided plume in contrast with its stunted growth. The stem is grayish and minutely hairy. The leaves are broadly lance-shaped, the lower with long stalks, all rough and rigid, imparting a wiry feel.

Canadian Golden-rod (*Solidago canadensis*). Composite family. July to September.

A common species, three to six feet high, with hairy stem. The flower-heads are small, in curving, one-sided, long racemes, forming a terminal panicle. The leaves are lance-shaped, sharply toothed, without stalks, rough, three-veined. Fields everywhere.



SWAMP GOLDEN-ROD
(*Solidago neglecta*)



SEASIDE GOLDEN ROD
(*Solidago sempervirens*)



GRAY GOLDEN-ROD
(*Solidago nemoralis*)



CANADIAN GOLDEN-ROD
(*Solidago canadensis*)

YELLOW OR YELLOWISH FLOWERS

GROUP XIII

Leaves alternate, simple. Flowers with five petals, or five-lobed corolla.

The yellow sepals of the Marsh Marigold (page 74) must not be mistaken for petals.

Mullein (*Verbascum Thapsus*). Figwort family. June to September.

The common mullein-stalk with stout woolly stem, biennial, sometimes perennial. The flowers, sometimes an inch broad, on the long, thick spike, have wheel-shaped corollas of five irregular lobes; stamens five, two long, the three others white-hairy. Leaves large and pointed. Fields and stony banks.

“ All summer long the mullein weaves

His soft and thick and woolly leaves.”—*Margaret Deland*.

Moth Mullein (*V. Blattaria*) is slenderer, with flowers on stalks. The hairs on the stamens are purplish. The corolla of variety *albiflorum* has a pink or purple tinge.

Poverty Grass (*Hudsonia tomentosa*). Rockrose family.
May to July.

A low heath-like shrub, less than a foot high. The flowers are numerous, tiny, with five petals; short stalks. The leaves are minute, pressed closely together. Sandy shores. Named after Hudson, the English botanist.

Rockrose (*Helianthemum canadense*). Rockrose family.
June to August.

A perennial, not over a foot and a half high, bearing at first generally a single flower at the top, an inch broad, with five bright yellow petals, a pistil with rounded head, numerous stamens; later smaller axillary flowers, usually without petals. Leaves oblong to lance-shaped, without teeth, the lower opposite. Dry ground. From the Greek for sun and flower.



Moth Mullein (*Verbascum Blattaria*)



MOTH MULLEIN
(*Verbascum Blattaria*)



MULLEIN
(*Verbascum Thapsus*)



POVERTY GRASS
(*Hudsonia tomentosa*)



ROCKROSE
(*Helianthemum canadense*)

YELLOW AND YELLOWISH FLOWERS

Buttercups and the Yellow Water Crowfoot

Bulbous Buttercup (*Ranunculus bulbosus*). Crowfoot family. May to July.

One of the earliest, rarely over a foot high, from a bulbous root. The flowers are solitary, one inch across; generally five petals; five sepals, *bent back*. Seed-vessels with short beaks. Leaves three-divided, each division again cut into rounded lobes. Fields and roadsides, everywhere. Hooked Crowfoot (*R. recurvatus*) also has sepals bent back, but grows in woods, has small petals, seed-vessels with *hooked* beaks, and leaves rarely divided. The Latin *ranunculus* means tadpole.

Swamp Buttercup (*Ranunculus septentrionalis*). Crowfoot family. April to July.

A coarse buttercup, sometimes two to three feet high, the stems running along the ground, again ascending. The bright yellow flowers are an inch or more across. Leaves large, on long stalks, with three leaflets, deeply cut, somewhat wedge-shaped. The beaks of the seed-cases are long and pointed. Marshy ground.

Small-flowered Crowfoot (*Ranunculus abortivus*). Crowfoot family. April to June.

A plant six inches to two feet high with inconspicuous flowers; tiny light yellow petals; sepals bent back. Beak of seed-vessel tiny. Lower leaves kidney-shaped, upper deeply cut. Moist ground. Bristly Crowfoot (*R. pennsylvanicus*) is similar, with fruit-head larger (one-third inch), lower leaves divided.

Tall Buttercup (*Ranunculus acris*). Crowfoot family. May to September.

The common buttercup of the fields. Flowers on the end of long stalks. Beaks of the seed-vessels short. Leaves deeply parted, lobes deeply cut.



YELLOW AND YELLOWISH FLOWERS

Creeping Buttercup (*Ranunculus repens*). Crowfoot family.
May to July.

A low buttercup, *spreading by runners*. The flowers are less than an inch in breadth; the petals longer than the sepals. The seed-case is tipped by a short and curved beak. The leaves are on leaf-stalks and have three divisions, the middle one with a stalk of its own; all are somewhat wedge-shaped and have white blotches. Everywhere. The Latin *repens* means creeping.

Yellow Water Crowfoot (*Ranunculus delphinifolius*).
Crowfoot family. June to August.

A flower like a buttercup rises from water or mud on a long stalk. The seed-vessels have long, slender beaks. The leaves are generally under water and finely dissected. The Latin *delphinus* means dolphin, *folium*, a leaf.

Water Plantain Spearwort (*Ranunculus laxicaulis*). Crow-foot family. June to August.

A slender weed a foot or two high, with stem rooting at the joints, bearing flowers slightly over half an inch broad, suggesting buttercups with narrow yellow petals; the beak of the seed-vessel is slender. The leaves are long and narrow, with practically smooth edges, clasping the stem. Wet ground. From the Latin *laxus*, open or extended, and *caulis*, stalk.

Downy Yellow Violet (*Violet pubescens*). Violet family.
April, May.

A violet with hairy stem, sometimes one and one-half feet high. Leaves broadly heart-shaped or kidney-shaped, commonly pointed, and with rounded teeth. Petals with sharp, purple veining, the lateral with beard. (Illustration, p. 75.)



WATER PLANTAIN SPEARWORT
(*Ranunculus laxicaulis*)



YELLOW WATER CROWFOOT
(*Ranunculus delphinifolius*)



CREeping BUTTERCUP
(*Ranunculus repens*)

YELLOW OR YELLOWISH FLOWERS

GROUP XIV

Leaves alternate. Flowers with four petals.

Evening Primrose (*Enothera biennis*). Evening Primrose family. Summer, autumn.

A stout, somewhat hairy, familiar plant, biennial, two to several, even eight or nine, feet high, bearing flowers an inch or two broad. The calyx is long, and ends in four pointed lobes; petals four. Leaves lance-shaped, pointed, lowest with stalks. Common in fields and roadsides. There are many species in the genus. The color is all this primrose has in common with that of England, of which Chaucer wrote—

“ The primrose paths of dalliance tread.”

Small Sundrops (*Enothera pumila*). Evening Primrose family. May to July.

An erect biennial with slender stem generally under a foot high. Flowers less than one-half inch across, one or few near the top, with four broad petals, notched. Leaves small, narrowly oblong, narrowed at the base. Common in dry ground. The pods are club-shaped, hairy.

Yellow Rocket (*Barbarea vulgaris*). Mustard family. April, May.

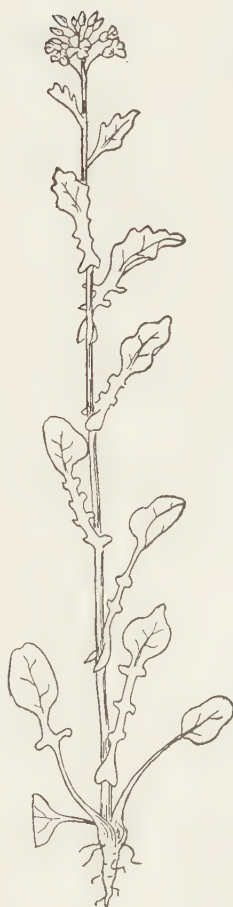
An upright perennial with angled stem, a foot or two high. The flowers, in terminal racemes, are small (one-fourth to one-third of an inch), bright yellow; the pods are long, curved, and spreading. The lower leaves, sometimes five inches long, with stalks, are pinnately cut, with a large, rounded terminal lobe and several pairs of small lateral ones; the upper leaves are without stalks. Common by the roadside and in waste places. Erect-fruited Wintercress (*Barbarea stricta*) is similar but with *pods erect* and pressed against the stem. Named in honor of St. Barbara.



EVENING PRIMROSE
(*Oenothera biennis*)



SMALL SUNDROPS
(*Oenothera pumila*)



YELLOW ROCKET
(*Barbarea vulgaris*)

YELLOW OR YELLOWISH FLOWERS

Black Mustard. Kale (*Brassica nigra*). Mustard family.
June to September.

The branching, straggling, common mustard, with bright yellow flowers (one-third inch broad) in raceme, replaced by upright, three-quarter inch pods. The lower leaves have *large terminal lobes* and smaller lobes pinnately arranged (lyrate); the upper are cut, toothed, or lance-shaped. Waste places. The Latin *brassica* means cabbage.

Wild Radish (*Ráphanus Raphanistrum*). Mustard family.
Summer.

An annual, or biennial, rarely over two and one-half feet high, stem stiffly hairy below, *flowers few, pale and large* (sometimes three-fourths inch across); its pods are sometimes two inches long and suggest pea-pods, on account of *constrictions between the seeds*. The leaves are coarse and rough, the lower with a large terminal lobe and small lobes below. Fields and yards. The Latin *raphanus* means radish.

Wild Mustard. Charlock (*Brassica arvensis*). Mustard family. May to September.

A small-flowered (one-half to two-thirds inch), sparingly hairy mustard with maximum height of two feet. The leaves are irregularly toothed, somewhat egg-shaped, blunt-pointed, the lower with short, flat stalks, the upper practically without stalks. Common in open places.

Hedge Mustard (*Sisymbrium officinale*). Mustard family.
May to September.

An upright, stiffly branching mustard from one to three feet tall. The flowers are very small, less than one-sixth inch broad; few are in blossom at once. The flowers are replaced by *small linear pods, pressed close to the stem*. Leaves long and pointed, pinnately cut with lobes turned backward, lower leaves with stalks. Waste ground.



BLACK MUSTARD
(*Brassica nigra*)



HEDGE MUSTARD
(*Sisymbrium officinale*)



WILD RADISH
(*Raphanus Raphanistrum*)



WILD MUSTARD
(*Brassica arvensis*)

YELLOW OR YELLOWISH FLOWERS

GROUP XV

Leaves alternate. Flowers neither composite, with five petals, nor with four petals.

The buttercups may be found in Group XIII (page 62 et seq.)

Lousewort. Wood Betony (*Pedicularis canadensis*).

Figwort family. April to June.

A perennial herb, six inches to a foot high, with short, thick spikes or heads, sometimes six inches or more long in fruit. The flower has a two-lipped corolla, three-fourths inch long, the upper lip with a hood; it may be of a reddish tinge. The leaves are pinnately parted or cut. Fields, banks, and thickets. From the Latin *pediculus*, louse, because feeding on this plant was supposed to breed lice in the sheep.

Ground Cherry (*Physalis virginiana*). Nightshade family.

July to September.

An upright branching perennial, one to three feet high, with flowers nodding along the stem. The bell-shaped corolla, generally under an inch broad, has a yellow centre and purplish spots. The leaves are large and broad, toothed. Light soil. From the Greek for bladder, applied to the calyx in fruit.

Barberry (*Bérberis vulgaris*). Barberry family. June.

A shrub (whose Latin name is derived from the Arabic) with delicate spines and small yellow flowers (one-third inch broad or under) in racemes from axils; six petals. Leaves inversely egg-shaped or spoon-shaped, with fine teeth, clustered; the leaves are technically compound, each with a single leaflet. Roadsides and thickets, where

“The barb'ry droops its strings o' golden flowers.”

—Lowell.



WOOD BETONY
(*Pedicularis canadensis*)



BARBERRY
(*Berberis vulgaris*)



GROUND CHERRY
(*Physalis virginiana*)

YELLOW OR YELLOWISH FLOWERS

Woad-waxen. Base Broom. Whin (*Genista tinctoria*).
Pulse family. June, July.

An upright shrubby plant with erect branches; maximum height two feet. The flowers (one-half inch long, in racemes one to two inches long) are papilionaceous (resembling pea blossoms), the ten stamens united in a tube (monadelphous). Leaves lance-shaped, an inch long, without stalks. *Genista* spreads freely in certain places, for example, about Salem, Massachusetts, where it yellows whole hillsides. From the Celtic word *gen*, a small bush.

Sessile-leaved Bellwort (*Oakesia sessilifolia*). Lily family.
May, June.

A delicate perennial, under a foot in height, with upright, slender, and acutely angled stem. There are one or two pale-yellow, narrowly bell-shaped flowers, not over an inch long, on slender stalks, terminal or opposite the leaves. The leaves are lance-shaped, acute at both ends, without stalks or clasping. A common plant in open woods. Perfoliate Bellwort (*Uvularia perfoliata*) is similar, but sometimes reaches a height of twenty inches, the flowers are larger, and *the leaves are pierced by the stem*, which is round and forked.

Butter and Eggs (*Linaria vulgaris*). Figwort family. June
to October.

A common wayside, upright, generally unbranched perennial, a foot or more in height, whose generic name is from *linum*, flax. The plant has linear leaves and rather showy flowers (an inch long or over) in dense racemes. The flowers are two-lipped, have a spur, and are of two shades of yellow; stamens four.

“ In orange cap and yellow skirt
She stands, this arrant farmer flirt.”
—Margaret Deland.



WOAD-WAXEN
(*Genista tinctoria*)



SESSILE-LEAVED BELLWORT
(*Oakesia sessilifolia*)



BUTTER AND EGGS
(*Linaria vulgaris*)

YELLOW OR YELLOWISH FLOWERS

Marsh Marigold (*Caltha palustris*). Crowfoot family.
April, May.

A low, early perennial, a foot or two high; stem hollow. The flowers, an inch or more across, have five or more broad, inversely egg-shaped, petal-like sepals, no petals. Leaves broad, heart- or kidney-shaped, with wavy edges. This is the flower that Tennyson says "shines like fire in swamps and hollows gray," but not the marigold of "Winter's Tale" (*Chrysanthemum segetum*) that—

"goes to bed wi' the sun
And with him rises weeping."

Yellow Lady's Slipper (*Cypripedium pubescens*). Orchis family. May to July.

An upright perennial, bearing a showy flower with inflated lip one and one-half inches long, and a long, brown, spirally twisted petal at each side. The leaves are broad-pointed. Damp places. From the Greek words for Venus, and a shoe.

Solomon's Seal (*Polygonatum biflorum*). Lily family. April to June.

A perennial with curved stem, averaging two feet or under. The somewhat bell-shaped, yellowish-green flowers (one-half inch long) droop from the axils, generally in pairs. Leaves egg-shaped to oblong or lance-shaped, practically without stalks. Woods. Great Solomon's Seal (*P. commutatum*), taller, bears more than two flowers in each cluster. Scars on the root-stalk suggest the English name its many joints, the Latin.



MARSH MARIGOLD
(*Caltha palustris*)



DOWNY YELLOW VIOLET
(*Viola pubescens*)



SOLOMON'S SEAL
(*Polygonatum biflorum*)



YELLOW LADY'S SLIPPER
(*Cypripedium pubescens*)

YELLOW AND YELLOWISH FLOWERS

Spotted Jewelweed (*Impatiens biflora*). Touch-me-not family. June to September.

A widely branching annual, two to several feet high. The loosely clustered flowers are three-fourths inch or more long. Calyx and corolla orange with brownish spots, sepals apparently four, two greenish, one a pouch; petals two, unequally two-lobed; spur bent back, one-third the length of the flower. Leaves egg-shaped to oval, coarsely toothed, with stalks. Common in damp, shady places and about old buildings. Pale Jewelweed (*Impatiens pallida*) is similar but its flowers are *pale-yellow* and only *slightly dotted*; *spur quite short*. More common northward. Named from the fact that the seed-vessel springs open to discharge the seeds.

Cypress Spurge (*Euphorbia Cyparissias*). Spurge family. May to September.

A perennial herb (named for the physician Euphorbus), generally under a foot high. The densely crowded, stiffly upright stems bear at the top umbels of tiny flowers subtended by the yellowish bracts which give them color. The flower has a somewhat top-shaped involucre with four crescent-shaped appendages (glands) and the three-celled ovary protrudes, with its three styles, each forked at the end. The leaves are narrow, alternate below, whorled under the umbels. The plants are noticeable from their manner of massing by the roadside, where they convey the impression of having walked out in a body from some neighboring graveyard.

GROUP XVI

Plants without leaves.

Horned Bladderwort (*Utricularia cornuta*). Bladderwort family. June to August.

A bog-plant with slender, rooting stems, several inches to a foot long, bearing one or more little irregular flowers at the end. The flower has a large lip and a spur.



SPOTTED JEWELWEED
(*Impatiens biflora*)



CYPRESS SPURGE
(*Euphorbia Cyparissias*)



HORNED BLADDERWORT
(*Utricularia cornuta*)



WHITE OR WHITISH FLOWERS

CHART OF WHITE OR WHITTISH FLOWERS

Directions.—First note whether plant falls in Class I, II, III, IV or V. Then follow out to the right. On reaching group, turn to page indicated, and look through the group.

Class I.—Plants with leaves opposite¹ { Trailing or climbing = Group I, p. 82
Shrubs² = Group II, p. 84
Herbs³ { Stem four-sided = Group III, p. 92
Stem not four-sided = Group IV, p. 94

Class II.—Plants with leaves whorled⁴ = Group V, p. 102

Class III.—Plants with no leaves = Group VI, p. 112

Class IV.—Plants with leaves from root only { Flowers with five petals⁵ = Group VII, p. 112
(Not violet-shaped)
Flowers with three petals = Group VIII, p. 120
Flowers violet-shaped = Group IX, p. 120
Flowers otherwise = Group X, p. 122

Class V.—Plants with leaves alternate { Leaves dissected⁶ = Group XI, p. 130
Leaves compound⁷ = See A
Leaves neither = See B

A.—(Plants with alternate, compound leaves) { Flowers in raceme⁸ or spike⁸ = Group XII, p. 130
Flowers in umbel⁸ = Group XIII, p. 134
Flowers not in raceme, spike, or umbel = Group XIV, p. 140

B.—(Plants with alternate, simple leaves) { Flowers in raceme or spike { Shrubs² = Group XV, p. 142
Herbs³ = Group XVI, p. 146
Flowers not in raceme or spike { Creeping or climbing = Group XVII, p. 152
Shrubs = Group XVIII, p. 156
Herbs { Flowers composite⁹ = Group XIX, p. 164
Flowers not composite = Group XX, p. 174

¹ With leaves in pairs, opposite each other *on the stem*, not at the root.

² Woody plants smaller than trees.

³ Plants with soft stems dying down every year.

⁴ Three or more together, *circling the stem*, not at the root.

⁵ The parts that ordinarily give the distinctive color to the flower.

⁶ Finely cut up.

⁷ Each leaf made up of smaller, similar ones, called leaflets, *all arranged on the same plane*, as in Ash, Rose, or Clover.

⁸ See description and illustration on page xvii.

⁹ The apparent flower is made up of many smaller flowers, *e.g.*, Daisy, Dandelion, Golden-rod and Everlasting. See p. xx.

WHITE OR WHITISH FLOWERS

GROUP I

Leaves opposite. Plant climbing or trailing.

Traveller's Joy (*Clematis virginiana*). Crowfoot family.
July to September.

A decorative vine climbing over bushes. The flowers (one inch broad), with four long sepals which resemble petals, and numerous stamens and pistils, are grouped in the axils, on stalks, pistillate and staminate on different plants. The leaves have three coarsely toothed leaflets and are on long, often twisted stalks. River banks, etc. Sometimes called Old Man's Beard, because of the long, hair-bearing styles persisting as tails to the fruit. Dioscorides' name for a climbing plant.

Partridge Berry (*Mitchella repens*). Madder family. May, June.

A short vine running on the ground, bearing at the ends of the branches little flowers in pairs; calyx four-toothed; corolla funnel-formed, widening at the end into four lobes, bearded inside. Each flower is about one-half inch long, and has a projecting pistil (with four stigmas) and (four) short stamens, or *vice versa*. The leaves have stalks and are egg-shaped, pointed, shining, evergreen. Dry woods. Named for John Mitchell, of Virginia.





TRAVELER'S JOY
(*Clematis virginiana*)

WHITE OR WHITISH FLOWERS

GROUP II

Leaves opposite. Shrubs.

Hobble-bush (*Viburnum alnifolium*). Honeysuckle family.
May, June.

A plant of straggling growth, smaller branches rusty. Flowers in flat clusters, *outer large* (one inch), sterile, inner smaller (one-eighth inch), fertile, all with five petals. Leaves broadly egg-shaped, pointed, *finely toothed*. Woods.

Arrow-wood (*Viburnum dentatum*). Honeysuckle family.
May, June.

A tall shrub with *small*, five-petalled, fertile flowers in flat clusters. Leaves pointed, somewhat heart-shaped at base, *coarsely toothed*. Moist places.

Sweet Viburnum. Nannyberry (*Viburnum Lentago*).
Honeysuckle family. May, June.

A tall shrub. Flowers *all small*, five-petalled, fertile, in flat clusters. *Leaf-stalks with margin*, leaves *finely toothed*, egg-shaped, pointed. Black Haw (*V. prunifolium*) similar, has leaves *widest in the middle*. Withe-rod (*V. cassinoides*) leaves have fine rounded teeth.



NANNYBERRY
(*Viburnum Lentago*)



WITHE-ROD
(*Viburnum cassinoides*)



HOBBLE-BUSH
(*Viburnum alnifolium*)



ARROW-WOOD
(*Viburnum dentatum*)

WHITE OR WHITISH FLOWERS

Cranberry-tree (*Viburnum Opulus*, var. *americanum*).

Honeysuckle family. June, July.

A tall shrub bearing flowers in flat clusters, the central flowers in the cluster small (one-eighth inch), fertile, with five-lobed corollas, the outer flowers large (three-fourths inch) with irregular white petals, and neutral, that is, with neither stamens nor pistils. The leaves are three-lobed, broad, the lobes sharply toothed. Fruit bright red berries (drupes). Low ground.

Maple-leaved Viburnum. **Dockmackie** (*Viburnum acerifolium*). Honeysuckle family. May, June.

A shrub several feet high, of straggling growth. The flowers, in flat clusters (compound cymes) at the end of the branches, *are small, and have both stamens and pistils*; calyx five-toothed; corolla five-lobed. The leaves have three pointed lobes, irregularly toothed. Dry woods.

To recapitulate: of the viburnums only Mountain Cranberry and Hobblebush have both large and small flowers, the former distinguished by its three-lobed leaves. Of the small-flowered, Maple-leaved alone has leaves with lobes; of the others, Arrow-wood has *coarse*, Withe-rod *fine, rounded* teeth; Nannyberry and Black Haw have *fine, pointed* teeth; of these two, Nannyberry is distinguished by its egg-shaped leaves, and *winged leaf-stalks*.

Red-berried Elder (*Sambucus racemosa*). Honeysuckle family. April, May.

This is similar to the common elder (next page) but bears its flowers in pyramidal clusters (panicled cymes). Fruit red berries (drupes). Rocky woods. Leaflets five to seven.



CRANBERRY-TREE
(*Viburnum Opulus*, var. *americanum*)



DOCKMACKIE
(*Viburnum acerifolium*)



RED-BERRIED ELDER
(*Sambucus racemosa*)

WHITE OR WHITISH FLOWERS

Elder (*Sambucus canadensis*). Honeysuckle family.

June, July.

A branching shrub, a few feet to ten feet high. The little flowers are in flat clusters (cymes), the corolla is somewhat urn-shaped with five spreading lobes; stamens five. The leaves are compound with five to eleven leaflets, toothed, oblong. Fruit, small purple or black berries (drupes). Rich soil.

The history of Elder abounds in practical and mystic lore. Of the same plant which furnishes a page in the Dispensatory we learn from Skinner's "Myths and Legends" that "On the night of January 6 you may cut a branch from it, having first asked permission, and spat thrice if no answer comes from the wood. With the branch you will mark a magic circle in a lonely field, stand at the centre, surrounded with such kinds of bloom and berry as you have saved from St. John's night, and, so prepared, you will demand of the devil, then abroad, some of his precious fern-seed that gives to you the strength of thirty men. Though the evil one is foot-free on that night, he is still under the spell of the good Hulda, and when a wand of her wood is directed against him he must obey, and the fern-seed will be brought by a shadowy somebody, folded in a chalice cloth."

Incidentally Elder wood cures toothache, keeps the house from attack, fends off snakes, mosquitoes, and warts, quiets nerves, interrupts fits, removes poison from metal vessels, keeps worms out of furniture, and guarantees that he who cultivates it shall die in his own house. Skinner adds that "if this cross be planted on the grave—as in the Tyrol, where peasants lift their hats to the Elder—the beatitude of the buried is understood when it bursts into bloom and leaf; if it fails to flower, the relatives may draw their own conclusions."



ELDER
(*Sambucus canadensis*)

WHITE OR WHITISH FLOWERS

Buttonbush (*Cephalanthus occidentalis*). Madder family.
June to September.

A shrub with spherical heads (one inch) of small flowers, with tubular four-lobed corollas, and long styles. Leaves oval, short-stalked, without teeth (sometimes whorled in threes). Near water. Named from the Greek words for head, and flower.

Flowering Dogwood (*Cornus florida*). Dogwood family.
May, June.

A decorative shrub bearing apparently solitary flowers (three or four inches broad) with four large white petals (really the involucre, enclosing the small greenish-yellow flowers, each with four petals and four stamens). Leaves broadly oval, pointed. Latin *cornu*, horn, referring to the hard wood.



Red-osier Dogwood
(*Cornus stolonifera*). Dogwood family. June, July.

A shrub with *purplish-red* branches; little flowers with somewhat egg-shaped petals in *flat clusters* (cymes). Leaves egg-shaped, not toothed, short-pointed, with slender stalks. Woody places. **Round-leaved Dogwood** (*C. circinata*) has rounded, short-stalked leaves, and *greenish, spotted* branches. **Panicked Dogwood** (*C. paniculata*) has *gray* branches, leaves broadly egg- or lance-shaped.



Buttonbush (*Cephalanthus occidentalis*)



BUTTONBUSH
(*Cephalanthus occidentalis*)



ROUND-LEAVED DOGWOOD
(*Cornus circinata*)

WHITE OR WHITISH FLOWERS

GROUP III

Leaves opposite. Herbs. Stem four-sided.

Water Horehound (*Lýcopus americanus*). Mint family.

June to September.

An erect perennial with stem perhaps a foot high, with small flowers clustered in the axils. Calyx with five bristle-pointed lobes; corolla two-lipped; two stamens prominent, two hidden. Leaves pointed, irregularly toothed or incised; stem *acutely* angled. Common in wet places. Bugle Weed (*L. virginicus*) is obtusely angled and less deeply toothed. Named from the Greek for wolf, and foot.

Lesser Stitchwort (*Stellaria graminea*). Pink family. May

to July.

An herb with slender stem, nine to eighteen inches high, from running root-stalk. The flowers (under one-half inch) have five petals split in two, and five rather shorter sepals. The leaves are narrowly lance-shaped. Fields and roadsides.

White Vervain (*Verbena urticæfolia*). Vervain family.

June to September.

An erect perennial, a few feet high, freely branching, and bearing minute white flowers in long slim spikes. Corolla tubular, five-cleft; calyx five-toothed. Leaves stalked, pointed, and coarsely toothed. Waste places. The Latin name for a sacred herb.

Narrow-leaved Mountain Mint (*Pycnánthemum flexuosum*).

Mint family. July to September.

An erect perennial with smooth, slender stem, stiffly branching, bearing many rounded heads of tiny flowers. The tubular corollas have two lips, lower three-lobed and purple-dotted; four stamens, two projecting. Leaves an inch or two long, pointed. Fields. Virginia Mountain Mint (*P. virginianum*) has broader leaves. Named from the Greek for dense, and blossom.



WATER HOREHOUND
(*Lycopus americanus*)



LESSER STITCHWORT
(*Stellaria graminea*)



WHITE VERVAIN
(*Verbena urticæfolia*)



NARROW-LEAVED MOUNTAIN MINT
(*Pycnanthemum flexuosum*)

WHITE OR WHITISH FLOWERS

GROUP IV

Leaves opposite. Herbs. Stem not four-sided.

Bladder Campion (*Silene latifolia*). Pink family.
All summer.

A common perennial herb, a foot or more high, bearing flowers (half-inch broad or more) with five petals cleft at the end and calyx inflated and veined. The leaves are egg-shaped and pointed. Common by roadsides and by the railway. Named from Greek for saliva, referring to the exudate in some species.

Miterwort (*Mitella diphylla*). Saxifrage family. April, May.

An upright perennial of the woods, six inches to a foot high, with hairy stem bearing small flowers in a delicate raceme; petals five, deeply toothed. The stem has two heart-shaped leaves, pointed, almost without stalks. (Greek word for cap.)

Enchanter's Nightshade (*Circea lutetiana*). Evening
Primrose family. June to August.

An erect branching perennial, a foot high or over, with long racemes of small flowers having two petals, two stamens, and a two-lobed calyx. The leaves are egg-shaped, pointed, toothed. The fruit is bur-like. Open woods. Named after Circe. Smaller Enchanter's Nightshade (*C. alpina*) is similar, but lower, and growing in deeper woods, three to eight inches high, with smooth feeble stem and heart-shaped leaves "Sharpe at the point like unto Spinage" (*Gerarde*, 1633).

Crinkle-root. Toothwort (*Dentaria diphylla*). Mustard
family. April, May.

A perennial with average height of a foot, bearing little flowers in a cluster (or short raceme) at the end of the stem; four sepals, four petals. Leaves made up of three leaflets; two on the stem, one from the root; the root-stalk is long and jointed, of pleasant taste. Rich woods. South and West. The name refers to the tooth-like sections of the root.



BLADDER CAMPION
(*Silene latifolia*)



MITERWORT
(*Mitella diphylla*)



CRINKLE ROOT
(*Dentaria diphylla*)



ENCHANTER'S NIGHTSHADE
(*Circæa lutetiana*)

WHITE OR WHITISH FLOWERS

Common Chickweed (*Stellaria media*). Pink family.
All year.

A familiar low annual with branched spreading stem, and with very small terminal flowers; sepals four or five; petals four or five, *shorter than the sepals*, deeply two-parted. The small leaves are egg-shaped or oval, pointed, the lower with hairy stalks. Damp ground, everywhere.

Field Chickweed (*Cerastium arvense*). Pink family. April to July.

A perennial with delicate stem, sometimes branching, ascending or erect, four to eight inches long, downy or nearly smooth. The flowers, one-half inch broad or more, have five two-lobed petals, *longer than the pointed sepals*. The leaves are very narrow. Dry or rocky places. Named from a Greek word for horn, referring to the fruit.

Great Chickweed (*Stellaria pùbera*). Pink family. May, June.

A freely branching perennial, a few inches to a foot high. The flower is rather small, with five sepals, and five petals, each petal split to its base. The upper leaves have no stalks, are rather obtusely pointed at both ends. Found in moist rocky ground, *not north of New Jersey*. The specimen sketched was found by the roadside near Washington, D. C.

Mouse-ear Chickweed (*Cerastium vulgatum*). Pink family.
May to September.

A hairy annual with slender branching stem, six inches to a foot and a half high. The flowers are similar to those of the other chickweeds, but the (notched) petals are *about the length of the sepals*. The leaves are blunt-pointed, without stalks. Woods and open places.



COMMON CHICKWEED
(*Stellaria media*)



MOUSE-EAR CHICKWEED
(*Cerastium vulgatum*)



GREAT CHICKWEED
(*Stellaria pubera*)



FIELD CHICKWEED
(*Cerastium arvense*)

WHITE OR WHITISH FLOWERS

Blunt-leaved Sandwort (*Arenaria lateriflora*). Pink family.
May, June.

An erect perennial with delicate stem, a few inches to a foot high. Flowers one-third inch broad; lateral and terminal; petals four or five, *not notched, twice the length of the sepals*. Leaves obtusely pointed. Latin *arena*, sand.

Mountain Sandwort (*Arenaria groenlandica*). Pink family. June to September.

A perennial, a few inches high, its delicate stem bearing little flowers; five petals, twice as long as the sepals. The leaves are narrow, the lower matted. Dry rocky places northward.

White Campion (*Lychnis alba*). Pink family. Midsummer.

An upright, hairy biennial. The flower, nearly an inch broad, has a tubular calyx, with five pointed teeth. The five petals are clawed and notched, with scales forming a crown at the centre. The leaves are somewhat lance-shaped. Waste places. Greek for lamp.

Turtlehead (*Chelone glabra*). Figwort family. July to September.

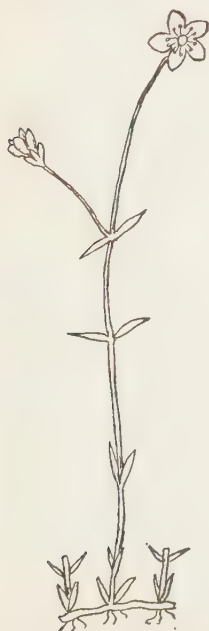
A perennial, one to several feet high, with a close cluster of (one inch) white or pinkish flowers; corolla two-lipped; four stamens (a rudimentary fifth). Leaves lance-shaped. Wet places. The Greek name signifies tortoise. (Illus. p. 100.)

White Snakeroot (*Eupatorium urticifolium*). Composite family. July to October.

A perennial, one to several feet high, with clusters of small, tubular flowers. Corolla tubular, five-lobed. Leaves (three to five inches) broadly egg-shaped, pointed, coarsely toothed, long-stalked, thin. Rich woods. (Illus. p. 100.)



BLUNT-LEAVED SANDWORT
(*Arenaria lateriflora*)



MOUNTAIN SANDWORT
(*Arenaria groenlandica*)



WHITE CAMPION
(*Lychnis alba*)

WHITE OR WHITISH FLOWERS

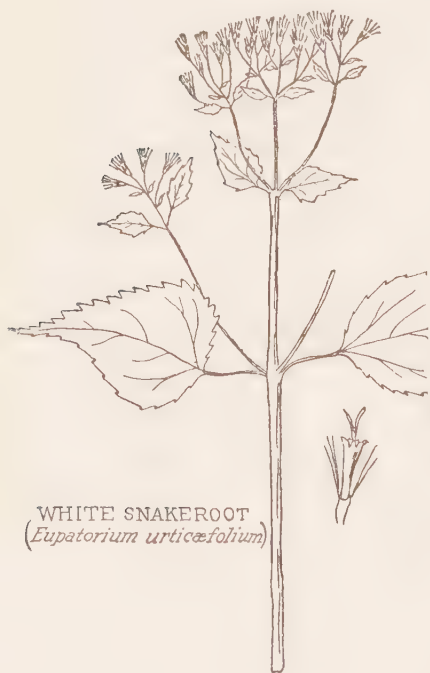
White Beard-tongue (*Pentstemon lævigatus*, var. *Digitalis*).

Figwort family. May to July.

A perennial, two to five feet high. Corolla (one inch) tubular, two-lipped; five stamens. Leaves lance-shaped, toothed. Dry ground. New York, South and West. Greek, five stamens.

Thoroughwort. Boneset (*Eupatorium perfoliatum*). Composite family. July to August.

A hairy perennial with stem several feet high, bearing small flower-heads in clusters. Florets with five-lobed corollas; cleft style. Long, woolly leaves united around the stem. Low ground. Named for Eupator Mithridates.



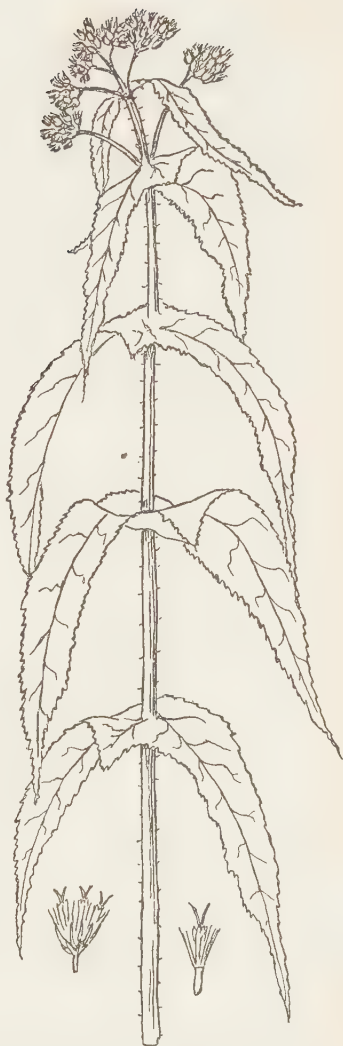
WHITE SNAKEROOT
(*Eupatorium urticæfolium*)



TURTLEHEAD
(*Chelone glabra*)



WHITE BEARD-TONGUE
(Pentstemon laevis, var. Digitalis)



THOROUGHWORT
(Eupatorium perfoliatum)

WHITE OR WHITISH FLOWERS

GROUP V

Leaves whorled.

Small Bedstraw (*Gàlium trifidum*). Madder family. July to September.

A delicate *reclining* perennial not over one and one-half feet long, with square, weak stem, often clinging to other plants by tiny prickles. Its minute flowers are in little clusters, oftenest three together when terminal. The corolla has four lobes; the calyx is globular. *Leaves in whorls of four*. Fruit a small, smooth, double bur. The Greek name signifies milk, to curdle which some galiums are used.

Rough Bedstraw (*Gàlium asprellum*). Madder family. June to August.

Perennial, similar to Small Bedstraw, but sometimes six feet long or over, with spreading branches and full clusters of tiny, four-parted flowers. *Leaves in whorls of five or six*. The whole plant has a more decorative effect than Small Bedstraw. Moist ground.

Wild Liquorice (*Galium lanceolatum*). Madder family. June to August.

A perennial *upright* Bedstraw, a foot or two high, without prickles. The flowers are generally short-stalked, the four corolla-lobes pointed, yellowish, turning purple. Its three-veined leaves, one to two inches long, are in *whorls of four*, broadly lance-shaped, tapering. The fruit is hairy. *Gàlium circæzans* has blunt-pointed, shorter leaves and greenish flowers.

Cleavers. Goose Grass. Bedstraw (*Gàlium Aparine*). Madder family. May to September.

An annual with length of two to five feet. There are one to three small flowers in the axils on fine stalks; corolla four- (sometimes three-) parted, lobes pointed. The leaves are generally *six to eight in a whorl*, inversely lance-shaped, blunt-pointed, with rough edges. Shady places.



SMALL BEDSTRAW
(*Galium trifidum*)



ROUGH BEDSTRAW
(*Galium asprellum*)



WILD LIQUORICE
(*Galium lanceolatum*)



CLEAVERS
(*Galium Aparine*)

WHITE OR WHITISH FLOWERS

Larger White Trillium (*Trillium grandiflorum*). Lily family.
May, June.

An upright perennial, a foot high, with three egg-shaped, pointed leaves, *practically without stalks*; from their junction rises a stalk one and one-half to three inches long, bearing a flower with three narrow sepals and three longer petals, in time becoming pinkish; six stamens, and three styles. Rich woods. Nodding Trillium (*Trillium cernuum*) is similar, but with *shorter flower-stalk curving downward*. The flower is smaller, and its petals hardly exceed the sepals. Painted Trillium (*Trillium undulatum*) is similar to Larger White Trillium but with crimson centre; petals longer than sepals, leaves (six by three and one-half inches) with *short stalks*. The name is descriptive, since all parts are in threes.

Bunchberry (*Cornus canadensis*). Dogwood family. May to July.

A perennial with stem four to eight inches high, bearing at the top a whorl of four to six leaves and, apparently, a single flower an inch broad with four large white petals and a greenish centre. The apparent petals are in reality an "involucre" of white leaves, and in the centre are the minute greenish flowers, each with four stamens and four petals, one with an awl-shaped appendage. Leaves egg-shaped or oval, pointed. Damp woods.

Star Flower (*Tricentalis americana*). Primrose family.
May, June.

A low perennial bearing a flower (sometimes two) one-half inch across, on a slender stalk; calyx mostly seven-parted; corolla mostly seven-parted, spreading, flat. Leaves (five to ten) whorled at top of stem, lance-shaped, tapering. Name from the Latin *triens*, a third, thought to mean a third of a foot high.



1 PAINTED TRILLIUM
(*Trillium undulatum*)

2 NODDING TRILLIUM
(*Trillium cernuum*)



BUNCHBERRY
(*Cornus canadensis*)



STAR FLOWER
(*Trientalis americana*)

WHITE OR WHITISH FLOWERS

Wood Anemone (*Anemone quinquefolia*). Crowfoot family.
April, May.

A low perennial with delicate stem bearing a flower an inch broad with four to nine white sepals resembling petals; no corolla. Sometimes, later, a leaf with five leaflets, at the base on a long stalk; below the flower are three leaves, long-stalked, each with three leaflets. Woods.

Thimbleweed (*Anemone virginiana*). Crowfoot family.
June to August.

An upright perennial, two feet or over, with stout hairy stem. The flowers (one to one and one-half inches broad) have five white petal-like sepals, no corolla. Leaves at the base long-stalked, three-parted; below the flower three leaves, with pointed lobes, on short stalks. Fruit oval or oblong. Woods and meadows. Long-fruited Anemone (*A. cylindrica*) and Canada Anemone (*A. canadensis*) are similar but lower, Long-fruited with narrowly cylindrical, Canada with spherical fruit.

Rue Anemone (*Anemonella thalictroides*). Crowfoot family.
April to June.

A low perennial, from tuberous roots, with simple stem bearing several flowers (one-half to one inch broad) in umbel; sepals numerous, resembling petals; petals none; three-lobed leaflets whorled under the flowers on slender stalks. Later from the base, other compound leaves with roundish leaflets, somewhat three-lobed at end, heart-shaped at base, in threes. Woods.

Authorities differ as to whether the name signifies "shaken by the wind," or whether it is a corruption of the Semitic name for Adonis. In any event the mythological origin of the Anemone dates from the death of Adonis, and the grief of Venus, when—

"The rose starts blushing from the sanguine dyes
And from her tears anemones arise."—*Bion*, Idyll.



WOOD ANEMONE
(*Anemone quinquefolia*)



THIMBLEWEED
(*Anemone virginiana*)



CANADA ANEMONE
(*Anemone canadensis*)



RUE ANEMONE
(*Anemonella thalictroides*)

WHITE OR WHITISH FLOWERS

Ginseng (*Panax quinquefolium*). Ginseng family. July, August.

An upright perennial, averaging a foot high, generally branched and having *spindle-shaped roots*. The minute flowers (with five petals and five stamens) are in umbel, perfect, staminate, and pistillate on the same plant or different plants (polygamous). There are three compound leaves in a whorl. The leaves are long-stalked and have five leaflets palmately arranged, the leaflets finely toothed and with stalks. Rich woods. The roots are highly prized in China for medicinal purposes. The fruit is in pairs. Named from the Greek for all, and cure.

Dwarf Ginseng (*Panax trifolium*). Ginseng family. April to June.

Somewhat similar to the above but averaging only six inches high, with much smaller leaves and flowers, and with a *spherical* root. The leaves have three to five leaflets.

Starry Campion (*Silene stellata*). Pink family. June to August.

An upright perennial herb, two feet or over. Flowers in large open cluster (panicle); corolla three-fourths inch wide, petals (five) fringed. The leaves are in whorls of four, egg- to lance-shape, long-pointed. Woods, Rhode Island, West and South. Named from the Greek for saliva, referring to the exudate on some species.

Pipsissewa (*Chimaphila umbellata*). Heath family. June to August.

Apparently upright perennials (really branches of horizontal stems), under a foot high, with leaves in several whorls. The flowers are in a terminal cluster, and have five petals. The leaves are evergreen, somewhat lance-shaped. Fruit five-lobed, flattened, globular. Dry woods. Named from the Greek for winter, and love.



WHITE OR WHITISH FLOWERS

Spotted Wintergreen (*Chimaphila maculata*). Heath family. June to August.

This plant is similar to Pipsissewa, on preceding page, but the *upper surface of the leaves is variegated* with white, and the leaves are less distinctly whorled.

Joe Pye Weed (*Eupatorium purpureum*). Composite family. August, September.

The description and picture of this familiar flower, whose generic name honors Eupator Mithridates, will be found under Pink IV, page 202. It is mentioned here because its flowers are sometimes white. This I have had opportunity to verify in the vicinity of Meriden, Connecticut.

The root of Joe Pye Weed, though not officinal, has been deemed valuable for a stimulant and astringent tonic, and for gout and rheumatism.

Culver's-root (*Veronica virginica*). Figwort family. June to September.

A tall, upright, perennial herb with unbranched stem, sometimes six or seven feet high, bearing leaves in many whorls and at the top minute flowers in showy white spikes, the central spike from three to nine inches long, the others shorter. The flowers have whitish, tubular, four-lobed corollas, from which project two stamens. The leaves are lance-shaped, pointed, with teeth. Southwestern New England, West and South. A specimen by the roadside in Thomaston, Connecticut, measured six feet and had a central spike seven inches long.

The derivation of the generic name is not established, but presumably it refers to St. Veronica, who wiped the face of Jesus on his journey to the Cross, and upon whose handkerchief his features were imprinted.



SPOTTED WINTERGREEN
(*Chimaphila maculata*)



CULVER'S-ROOT
(*Veronica virginica*)

WHITE OR WHITISH FLOWERS

GROUP VI

Plants without leaves.

Dodder. Love Vine (*Cúscuta Gronovii*). Convolvulus family. July, August.

A parasitic annual, growing over other plants; the stems are fragile, orange-colored. The flowers are small in dense clusters (cymes); corolla bell-shaped, its borders generally five-cleft; stamens five.

Indian Pipe. Corpse Plant (*Monótropha uniflora*). Heath family. June to August.

A waxy little plant bearing a pendulous flower with four, five, or six petals. The fruit is salmon-pink, and *upright*. Found in rich woods in early summer. Greek for one, and turn, perhaps from bend in stem.

Pinesap (*Monótropha Hypopitys*). Heath family. June to October.

This plant is similar to Indian Pipe, but the flowers are in racemes, white with reddish-yellow spots.

GROUP VII

Leaves from root only. Flowers with five regular petals.

The white sepals of Goldthread, page 126, may easily be mistaken for petals; they vary in number from five to seven.

Foam-flower. False Miterwort (*Tiarella cordifolia*). Saxifrage family. April, May.

A perennial herb of the woods, not over a foot high. The delicate flowers (one-fourth inch broad) are in long racemes. The leaves are somewhat heart-shaped. Seed-case thin, of two unequal parts. Latin noun refers to seed-case.



DODDER
(*Cuscuta Gronovii*)



INDIAN PIPE
(*Monotropa uniflora*)



PINESAP
(*Monotropa Hypopitys*)



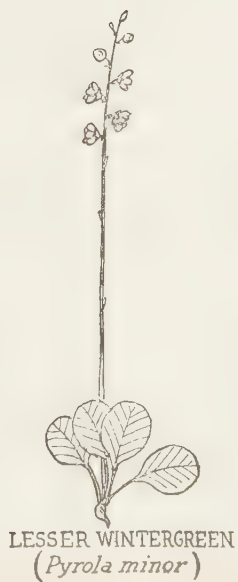
FOAM-FLOWER
(*Tiarella cordifolia*)

WHITE OR WHITISH FLOWERS

Shin Leaf (*Pyrola elliptica*). Heath family. June to August.

A low perennial, found in rich woods. The single stem (bracted scape), generally under a foot high, bears a raceme of little nodding flowers (one-half inch broad or over) with five rounded petals, ten stamens, and a *protruding style*. The leaves are evergreen, shiny, thin, *oblong or egg-shaped*, on *stalks shorter than the leaves*. The plant rises from a long underground shoot. The English name suggests its earlier use as an external application. Round-leaved Pyrola (*P. americana*) is similar to Shin Leaf above, but the leaves are *round and thick*, and *stalks generally longer than the leaves*. One-sided Wintergreen (*P. secunda*) is similar to the Round-leaved, but smaller (maximum height nine inches), the flowers all turning to one side; leaves egg-shaped, thin. Lesser Wintergreen (*P. minor*) is a pyrola only a few inches high, with very small flowers having *short styles*. The Latin name means a little pear-tree.

In Gerarde's Herbal (1633), we find the following characteristic description of the Pyrola, presumably the Shin Leaf: "Pyrola hath many tender and verie green leaues, almost like the leaues of beet, but rather in my opinion like to the leaues of a pearc-tree, whereof it took his name, Pyrola, for that it is pyriformis. Among these leaues cometh up a stalke garnished with prittie white floures, of a verie pleasant sweet smell like Lillium Convallarium, or the Lillie of the Valley. The root is small and threddie, creeping farre abroad under the ground."



WHITE OR WHITISH FLOWERS

One-flowered Pyrola (*Monèses uniflora*). Heath family.
June to August.

A little perennial of the woods with stem (scape) a few inches high, bearing at the top a wax-like flower one-half inch or more across, with five broad rounded petals; style long and straight, with five-lobed stigma. The leaves have teeth.

Round-leaved Sundew (*Drósera rotundifolia*). Sundew family. June to August.

A perennial, or biennial, several inches high with very small flowers, generally five petals, five stamens, three styles. The leaves are rounded, covered with bristles that exude a glistening fluid, hence the generic name, which signifies dewy. Bogs.

Wood Sorrel (*Oxalis Acetosella*). Wood Sorrel family. May to July.

A perennial a few inches high, the generic name meaning sour, referring to the juice. The flower has five white petals (one-half inch long) with pink veins, sometimes notched at the end, five long and five short stamens. The leaves have three leaflets, inversely heart-shaped, dropping at night. This specimen was growing in thick swampy woods at the head of Lake Willoughby, Vermont. A treat is in store for him—

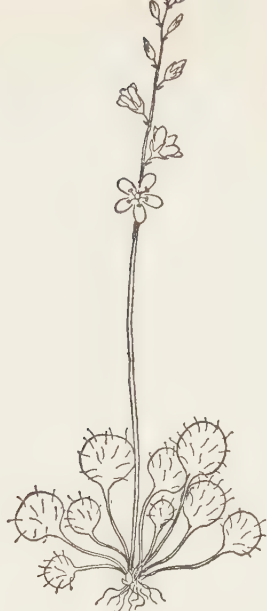
“ Who from the stumps with bright green masses clad,
Plucks the Wood-Sorrel with its bright green leaves,
Heart-shaped and triply folded; and its root
Creeping like beaded coral.”—*Charlotte Smith*.

White Water Crowfoot (*Ranunculus aquatilis*, var. *capillaceus*). Crowfoot family. June to September.

A perennial herb with small flowers resembling buttercups, rising out of the water on slender stalks; petals five, rounded. The leaves are finely dissected, under water.



ONE-FLOWERED PYROLA
(*Moneses uniflora*)



ROUND-LEAVED SUNDEW
(*Drosera rotundifolia*)



WOOD SORREL
(*Oxalis Acetosella*)



WHITE WATER CROWFOOT
(*Ranunculus aquatilis*, var. *capillaceus*)

WHITE OR WHITISH FLOWERS

Dalibarda (*Dalibarda repens*). Rose family. June to September.

A perennial with stems a few inches high, rising from a root-stalk, and bearing half-inch flowers with five rounded petals and calyx deeply five- or six-parted; stamens many. The fuzzy leaves are heart-shaped, with rounded teeth, on slender stalks. Woods. Named after the botanist Dalibard.

Grass of Parnassus (*Parnassia caroliniana*). Saxifrage family. June to September.

Named from Mt. Parnassus. It has clustered leaves at the base, and often one clasping the stem (scape). The scapes sometimes reach a foot or two, each bearing a flower one to one and one-half inches broad, with five rounded petals, five perfect stamens and many rudimentary ones. The leaves are thick, broadly oval or egg-shaped, obtusely pointed, somewhat heart-shaped. Wet places.

Early Saxifrage (*Saxifraga virginiensis*). Saxifrage family. March to May.

A perennial, hairy herb under a foot high with little flowers in loose clusters; five narrow, somewhat spoon-shaped petals; calyx with five blunt lobes; ten stamens. The leaves have teeth, sometimes rounded. Dry hillsides, often among rocks, whence its name, unless, as some authors think, the stone-breaking refers to medicinal qualities.

Swamp Saxifrage (*Saxifraga pennsylvanica*). Saxifrage family. May.

A taller plant with stem *sometimes three feet high*. The whitish flowers (two lines broad) have ten stamens and five narrow petals; the five lobes of the calyx are bent back. Leaves broadly lance-shaped, blunt-pointed. Wet ground.



DALIBARDA
(*Dalibarda repens*)



GRASS OF PARNASSUS
(*Parnassia caroliniana*)



EARLY SAXIFRAGE
(*Saxifraga virginiensis*)



SWAMP SAXIFRAGE
(*Saxifraga pennsylvanica*)

WHITE OR WHITISH FLOWERS

GROUP VIII

Leaves from root only. Flowers with three petals.

Arrow-head (*Sagittaria latifolia*). Water-plantain family.
August, September.

A perennial herb a few inches to a few feet high, bearing whorls of three flowers, an inch broad, each with three petals. The staminate flowers are generally above; the pistillate, with globular pistil, below; sometimes all staminate or pistillate. The arrow-shaped leaves (whence the name) are on long stalks, vary from a few to many inches, are sometimes broad and blunt, again narrow and pointed. There are many varieties of *Sagittaria*.

Water Plantain (*Alisma Plantago-aquatica*). Water-plantain family. June to September.

A branching, generally perennial herb, average height two feet, bearing many tiny flowers with three petals, generally six stamens; involucre of three bracts. The leaves are long-stalked, egg-shaped, pointed. Wet places or shallow water.

GROUP IX

Leaves from root only. Flowers violet-shaped.

Sweet White Violet (*Viola blanda*). Violet family. April, May.

This plant has small, sweet-scented flowers, the lower petal with fine purple veining. The leaves are round, heart-shaped or kidney-shaped, with wavy-toothed edges. Damp places.

Lance-leaved Violet (*Viola lanceolata*). Violet family.
April to June.

This violet is a few inches high with lance-shaped leaves, long stalked. The lateral petals are very slightly bearded. The flower-stalk is apt to be red-streaked. Wet ground.



Arrow-head (*Sagittaria latifolia*)

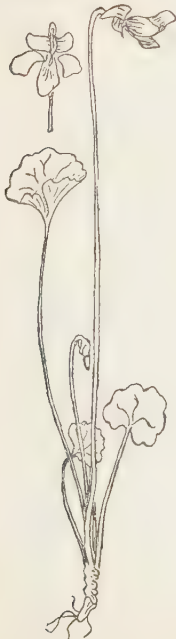




ARROW-HEAD
(*Sagittaria latifolia*)



WATER PLANTAIN
(*Alisma Plantago-aquatica*)



SWEET WHITE VIOLET
(*Viola blanda*)



LANCE-LEAVED VIOLET
(*Viola lanceolata*)

WHITE OR WHITISH FLOWERS

GROUP X

Leaves from root only. Flowers neither with three nor five petals, nor violet-shaped.

Rattlesnake Plantain (*Epipactis pubescens*). Orchis family.
August, September.

A hairy stem, average height a foot, bears small whitish flowers in slender spike. One of the three sepals is united with two of the petals, the free sepals are egg-shaped; the other petal is in form of a sac. Egg-shaped leaves prominently veined. Lesser Rattlesnake Plantain (*E. repens*, var. *ophioides*) is smaller. Its leaf has a white border.

Ladies' Tresses (*Spiranthes cernua*). Orchis family.
September, October.

A pretty herb, six inches to two feet, the stem (scape) bearing bracts. Flowers (similar to above) are in a twisted spike. Greek for coil, and flower. The leaves are narrow. Meadows, etc. The commonest of this genus in this region, *S. gracilis*, in sandy soil, is more delicate.

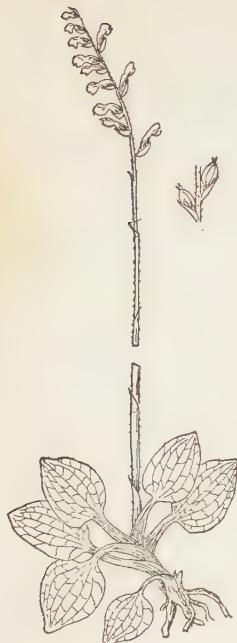
English Plantain (*Plantago lanceolata*). Plantain family.
Early spring to late fall.

A common weed resembling our more common plantain but with *narrower leaves* and *shorter spike*. The corolla is salverform, four-lobed, stamens long.

Bloodroot (*Sanguinaria canadensis*). Poppy family. April, May.

A low perennial with solitary flower an inch broad; petals eight to twelve, long, pointed; stamens numerous, sepals two, quickly falling. Leaf large, kidney-shaped, lobed. Root-stalk with red juice, whence the name. Rich woods.

“Bloodroots, whose rolled-up leaves ef you uncurl,
Each on 'em's cradle to a baby-pearl.”—*Lowell*.



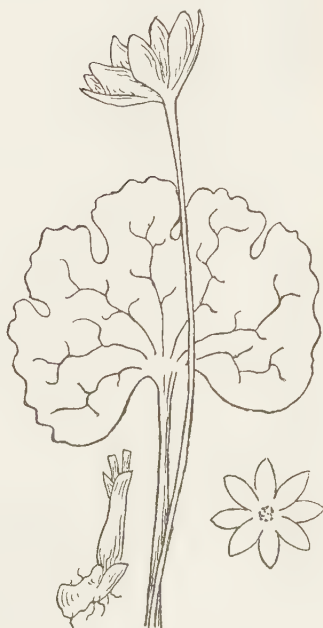
RATTLESNAKE PLANTAIN
(*Epipactis pubescens*)



LADIES' TRESSES
(*Spiranthes cernua*)



ENGLISH PLANTAIN
(*Plantago lanceolata*)



BLOODROOT
(*Sanguinaria canadensis*)

WHITE OR WHITISH FLOWERS

Great Green Orchis (*Habenaria orbiculata*). Orchis family.

July, August.

An orchis a foot or more high with two large round leaves lying flat on the ground. The flowers are whitish, with long spurs, in open raceme. The sepals are rounded, the petals lance-shaped, the lip blunt; there are bracts on the stem. Hooker's Orchis (*H. Hookeri*) is similar but the leaves are sometimes raised from the ground, the stem has no bracts, the lip is pointed, the sepals narrower. *Habena* means rein, said to refer to the lip of some species (Gray).

Dutchman's Breeches (*Dicentra Cucullaria*). Furnitory family. April, May.

This perennial herb, from a bulb, bears a raceme of small flowers tipped with cream color and having a corolla with two spreading spurs three-fourths inch across. The leaves have slender stalks and are much divided. Woods. Its distribution is said to be from Nova Scotia west and south, but it is not generally distributed in eastern New England. Mathews states that he has never found it in New Hampshire, and it is not found, I think, in eastern Massachusetts. Squirrel Corn (*Dicentra canadensis*) is similar, but the roots bear little tubers, and the spurs of the flowers are short and rounding. Generic name signifies twice and spur.

Colic-root (*Aletris farinosa*). Lily family. May to August.

An upright perennial herb with slender, single stem (scape) with maximum height of three feet. The flowers (with cylindrical perianth) are small, scurfy, tubular, in long, slender, spike-like raceme at the end of the stem. The leaves are pointed. Woods. Named from a grinder of corn, referring to the scurfiness.

In the United States Dispensatory we find that the root is "small, crooked, branched, blackish externally, brown within and intensely bitter."



DUTCHMAN'S BREECHES
(*Dicentra Cucullaria*)



COLIC-ROOT
(*Aletris farinosa*)



GREAT GREEN ORCHIS
(*Habenaria orbiculata*)

WHITE OR WHITISH FLOWERS

Goldthread (*Coptis trifolia*). Crowfoot family. May to August.

A little perennial with *yellow, thread-like, bitter root-stalks*. The plant is tufted and its delicate stems, a few inches high, bear solitary flowers (one-half inch broad) with five to seven petal-like sepals and five to six inconspicuous, club-shaped petals. The leaves have three shiny and sharply toothed leaflets. The fruit consists of several follicles with beaks, on stalks (stipes). Bogs and damp woods. The generic name is from the Greek for cut, referring to the leaves.

Buckbean (*Menyanthes trifoliata*). Gentian family. May to July.

A perennial rising from water, a foot high or under, bearing flowers one-half inch long, white or with reddish tinge; corolla funnel-shaped, bearded, five-cleft. Leaves of three leaflets on long stems. Bogs. Generic name from Greek for month and flower, perhaps since it flowers for about this period (Gray).

Star of Bethlehem (*Ornithógalum umbellatum*). Lily family. May, June.

A stem (about one foot) rises from a bulb and bears a cluster of flowers on long stalks, each with a narrow bract; perianth divisions six, one-half to three-fourths inch long, white with green streak outside. The leaves are linear. Fields, in some places growing very abundantly as in the photograph lining the cover, but not common in New England. Massachusetts, South, and West. Generic name signifies bird's milk.

Wild Garlic (*Allium canadense*). Lily family. May, June.

A slender stem (scape) perhaps one foot high rises from a bulb and bears an umbel of white or pinkish six-divided flowers, one-fourth inch long, the place of the flowers often taken by egg-shaped bulbs. *Leaves long and narrow*. Wild Leek (*A. tricoccum*) is similar but shorter and with *broader leaves*.



GOLDTHREAD
(*Coptis trifolia*)



STAR OF BETHLEHEM
(*Ornithogalum umbellatum*)



BUCKBEAN
(*Menyanthes trifoliata*)



WILD GARLIC
(*Allium canadense*)

WHITE OR WHITISH FLOWERS

Water Arum (*Calla palustris*). Arum family. May, June.

An attractive perennial under a foot high with small green flowers, on a spadix (one inch) surmounted by a large white spathe. The lower flowers are perfect, the upper sometimes staminate. Leaves broadly heart-shaped, long-stalked. Bogs.

Seven-angled Pipewort (*Eriocaulon articulatum*). Pipewort family. July to October.

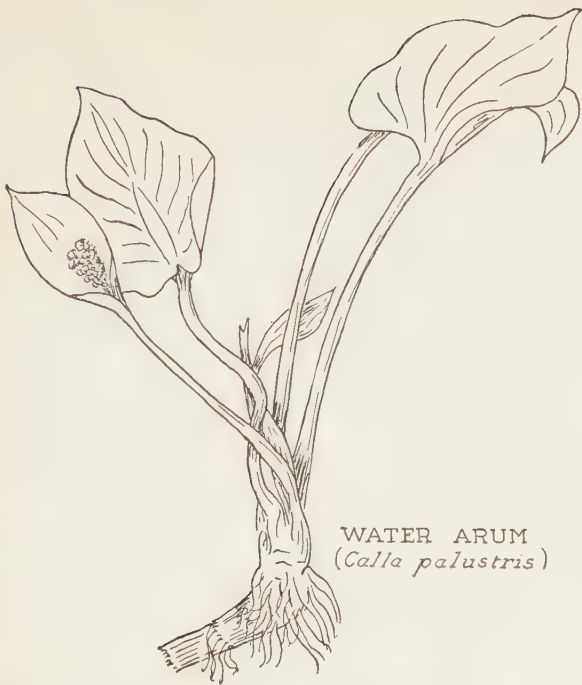
Delicate stems, four- to seven-angled, bearing minute flowers in small heads, some with stamens, others pistils (monœcious). The parts of the flower have been variously classed; following Gray there are two or three sepals, and the corolla of the staminate flower is two- or three-lobed. The pistillate flower has two or three narrow petals and the sepals are so remote as to suggest rather bracts. In the centre of each corolla-lobe is a dark spot. Leaves, one-half to three inches long, are narrow, parallel-veined. Quiet water. Generic name signifies woolly stalk.

Floating Heart (*Nymphoides lacunosum*). Gentian family. July, August.

A perennial with leaves floating or under water. Small, regular, polygamous flowers, one-fourth to one-half inch broad, in umbel with a cluster of tubers. Corolla five-parted. What appears to be a long stem is really a runner from the primary root-stalk. Shallow water.

Twinleaf (*Jeffersonia diphylla*). Barberry family. April, May.

Perennials with stems under a foot high, and long delicate leaf-stalks. The solitary flower (one inch) has eight petals and four quickly falling sepals. The leaves (six inches long or under) are divided into two leaflets. Named for Thomas Jefferson.



WATER ARUM
(*Calla palustris*)



PIPE WORT
(*Eriocaulon articulatum*)



FLOATING HEART
(*Nymphoides lacunosum*)



TWINLEAF
(*Jeffersonia diphylla*)

WHITE OR WHITISH FLOWERS

GROUP XI

Leaves (alternate) finely dissected.

May-weed. Chamomile (*Ánthemis cotula*). Composite family. June to November.

An annual, a foot or two high. Flower-heads an inch broad, rays white, neutral, disk yellow. Roadsides, where,—

“ the Camomile, the more it is trodden,
The faster it grows.—*King Henry IV.*

Yarrow (*Achillea Millefolium*). Composite family. June to November.

A perennial herb, maximum height two feet, with small, white (rarely pink) flowers in flat-topped clusters; ray-flowers pistillate, disk-flowers perfect. One of the most widely distributed of plants. Named for Achilles.

Queen Anne's Lace. Wild Carrot (*Daucus caròta*). Parsley family. June to September.

A decorative biennial weed. The slender stem bears a compound umbel of delicate, irregularly five-petalled flowers.

GROUP XII

Leaves alternate, compound. Flowers in spike or raceme.

Canadian Burnet (*Sanguisorba canadensis*). Rose family. July to October.

A striking perennial, maximum height six feet, bears a long spike of feathery flowers. The name is from *sanguis* and *sorbare*, to drink up blood, *i.e.*, styptic. There are four petal-like sepals, no petals, and four very long stamens. The leaves have seven or more toothed leaflets. Meadows, etc. Salad Burnet (*S. minor*) was referred to in Henry V—

“ The even mead, that erst brought sweetly forth
The freckled cowslip, burnet and sweet clover.”



CHAMOMILE
(*Anthemis cotula*)



YARROW
(*Achillea Millefolium*)



CANADIAN BURNET
(*Sanguisorba canadensis*)



QUEEN ANNE'S LACE
(*Daucus Carota*)

WHITE OR WHITISH FLOWERS

White Baneberry (*Actæa alba*). Crowfoot family. April to June.

A perennial with average height of about two feet, bearing flowers in a terminal broad raceme; sepals falling early; petals narrow, numerous prominent stamens; leaves of many leaflets, pointed, cut, and toothed. Fruit china-white berries on stout red stalks. Rich woods. Red Baneberry (*Actæa rubra*) is similar but the petals broaden at the end, the berry-stems are slender, and the berries are red. Occasionally the stalks are stout in Red, and slender in White Baneberry.

Pennsylvania Bitter Cress (*Cardamine pennsylvanica*).
Mustard family. April to June.

An erect herb a few inches to two feet high. The little flowers are in racemes with four sepals, four petals, and six (sometimes four) stamens. Leaves pinnately compound, the seven to eleven leaflets oval or inversely egg-shaped, the end one broader. The pods are slender and round. Wet places.

A similar plant, common in England, has been made famous by the lines—

“ And Lady-smocks all silver-white
Do paint the meadows with delight.”

This is the *Cardamine pratensis*, quite rare in this country. Its four petals are pink or white (apt to show pink in the bud and white in full bloom), and much larger, the flower measuring three-fourths of an inch across. The leaflets of the lower leaves are broader than those of the upper. Lady-smock grows within fifteen miles of Boston, but hardly in sufficient quantity to paint the meadows.



RED BANEBERRY
(*Actaea rubra*)



PENNSYLVANIA BITTER CRESS
(*Cardamine pennsylvanica*)



WHITE BANEBERRY
(*Actaea alba*)

WHITE OR WHITISH FLOWERS

White Sweet Clover. White Melilot (*Melilotus alba*).

Pulse family. June to November.

An annual or biennial, average height three feet, bearing small papilionaceous fragrant flowers in slender racemes; nine stamens in group, one separate (diadelphous). Leaflets narrower than those of ordinary clover. The pleasantly scented flowers have figured in domestic medicine, but there is no officinal preparation of the drug. The Greek name signifies honey-lotus.

Bugbane. Black Cohosh (*Cimicifuga racemosa*). Crowfoot family. June to August.

A perennial herb, three to seven feet high, with slender, long, showy, spike-like racemes of feathery flowers, apparently made up entirely of white stamens. The flowers are never all in bloom at once and the spike is likely to contain buds at the top, flowers in bloom in the middle, and fruit below; sepals four or five, rapidly falling; petals four to eight, resembling stamens; stamens many, giving the fluffy appearance. Leaves coarse in texture, two or three times divided; leaflets pointed, sharply toothed. Rich woods. Latin *cimex*, bug, and *fugere*, to drive off.

GROUP XIII

Leaves alternate, compound. Flowers in umbel.

Wild Sarsaparilla (*Aralia nudicaulis*). Ginseng family.

May, June.

A common perennial herb of the open woods with leafless stem under a foot high bearing at the top an umbel of minute flowers; petals (five) bent back, stamens (five) on ovary. Alongside rises a somewhat taller slender stalk bearing a leaf of three divisions, each with three to five leaflets. The root-stalk is aromatic and very long, sometimes over two feet.



Bugbane (*Cimicifuga racemosa*)





WHITE SWEET CLOVER
(*Melilotus alba*)



WILD SARSAPARILLA
(*Aralia nudicaulis*)



BUG BANE
(*Cimicifuga racemosa*)

WHITE OR WHITISH FLOWERS

Sanicle (*Sanicula marilandica*). Parsley family. May to July.

A perennial, maximum height four feet, with minute flowers in small umbels; five incurved petals from which protrude two long styles. Staminate and pistillate flowers on the same plant (monoëcious). The lower leaves have long stalks, the upper no stalks; all have *palmate* divisions, generally toothed. Woods. Latin *sano*, I heal.

Sweet Cicely (*Osmorhiza longistylis*). Parsley family. May, June.

Maximum height three feet. Flowers small, in open umbels, with involucre of narrow bracts; five petals, notched at end, five stamens, calyx without teeth, styles one-twelfth inch long in fruit, those of the *O. brevistylis* being half as long. *Leaves divided in threes*; leaflets egg-shaped, variously toothed. The root has a fennel odor. This plant should not be confounded with Spotted Cowbane.

Spotted Cowbane. Water Hemlock (*Cicuta maculata*). Parsley family. June to August.

A perennial, maximum height six feet, *stem with purple streaks*. Tiny, five-petalled flowers in compound umbels, many in an umbel, polygamous. The leaves are doubly and pinnately compound, the lower on long leaf-stalks, with coarse teeth and *prominent veins* ending in the notches. Root poisonous. Wet ground.

Bristly Sarsaparilla (*Aralia hispida*). Ginseng family. June, July.

An upright *bristly* perennial, maximum height three feet, from a long root. Umbels of small flowers, having five petals and five stamens. The leaves are twice-divided, the leaflets oblong to egg-shaped, pointed, sharply toothed. Rocky and sandy places. Fruit broad, five-lobed.



SWEET CICELY
(*Osmorhiza longistylis*)



SANICLE (in fruit)
(*Sanicula marilandica*)



SPOTTED COWBANE
(*Cicuta maculata*)



BRISTLY SARSAPARILLA
(*Aralia hispida*)

WHITE OR WHITISH FLOWERS

Cow Parsnip (*Heracleum lanatum*). Parsley family.

June, July.

A perennial with *stout grooved stem* sometimes reaching eight feet, bearing large flat clusters of white flowers, with five stamens and five somewhat wedge-shaped petals, sometimes two-lobed. Leaves of *three large, irregularly toothed leaflets*, leaf-stalk clasping the stem. Wet ground. From the Greek for Hercules.

Honewort (*Cryptotaenia canadensis*). Parsley family.

June, July.

An upright perennial whose smooth stem has a maximum height of three feet. The irregular umbels have no involucre, and few rays; the tiny flowers have five petals, five stamens. The leaves have *three leaflets*, egg-shaped, double-toothed.

Water Parsnip (*Sium cicutæfolium*). Parsley family.

July to October.

An upright, stout perennial, maximum height six feet, bearing compound umbels of tiny flowers with five petals, five stamens with reddish anthers. Leaves with *pinnate leaflets*, narrow, sharply toothed, in one to three pairs. Lower leaves sometimes under water and finely dissected.

Scotch Lovage (*Ligusticum scòthicum*). Parsley family.

August.

A perennial, rarely over a foot and a half high, growing from a very *odorous root*. The umbels are of good size, the flowers tiny, with five petals, five stamens. The leaves are ternately compounded, the leaflets egg-shaped, with coarse teeth. This plant is much shorter than garden lovage, and is apt to grow along rocks in low ground near the coast. Named from Liguria, a province of ancient Italy.

The enlargement in the illustration shows how the flower-stalks lengthen in fruit; the linear bracts subtending the umbels extend beyond the flowers, but do not reach the fruit. The specimen drawn grew in Marblehead.



COW PARSNIP
(*Heracleum lanatum*)



HONEWORT
(*Cryptotaenia canadensis*)



WATER PARSNIP
(*Sium cicutæfolium*)



SCOTCH LOVAGE
(*Ligusticum scoticum*)

WHITE OR WHITISH FLOWERS

GROUP XIV

Leaves alternate, compound. Flowers neither in raceme, spike, nor umbel.

Three-toothed Cinquefoil (*Potentilla tridentata*). Rose family. June to August.

A small plant, under a foot high, with little clusters of flowers having five petals, five calyx-lobes, and five little bracts alternating with them. There are three leaflets, oblong, three-toothed at the end. From the Latin *potens*, powerful.

Waterleaf (*Hydrophyllum virginianum*). Waterleaf family. May to August.

A perennial herb, a foot or over, bearing bell-shaped flowers in curled-up, raceme-like clusters. Leaves with several divisions, coarsely toothed, pointed. Woods. From the Greek for water, and leaf, referring to the supposed cavity for water in each leaf (Britton and Brown).

Tall Meadow Rue (*Thalictrum polygamum*). Crowfoot family. July to September.

A decorative perennial herb with average height of six feet, bearing small flowers in compound panicles; petals wanting, sepals resembling petals; stamens prominent. The foliage is delicate, the leaves two to three times compound, the leaflets numerous, rounded. The flowers are polygamous (perfect, staminate, and pistillate, on the same or on different plants). Common in meadows and roadsides in damp ground. The derivation of the generic name is uncertain.



Tall Meadow Rue (*Thalictrum polygamum*)



THREE-TOOTHED CINQUEFOIL
(*Potentilla tridentata*)



WATERLEAF
(*Hydrophyllum virginianum*)



TALL MEADOW RUE
(*Thalictrum polygamum*)

WHITE OR WHITISH FLOWERS

Spikenard (*Aralia racemosa*). Ginseng family. July, August.

A perennial several feet high, widely branching. Flowers small, in long clusters; corolla with five lobes; stamens five; leaflets heart-shaped, with double teeth. Rich woods.

White Avens (*Geum canadense*). Rose family. June to August.

A perennial, two feet high, bearing flowers on hairy stalks; petals five; stamens many. Root-leaves generally of three to five leaflets; stem-leaves three-divided, or lobed, toothed.

GROUP XV

Leaves alternate, simple. Flowers in raceme, spike, or head. Shrubs.

Choke Cherry (*Prunus virginiana*). Rose family. April, May.

A tall shrub with grayish bark. The drooping racemes have small flowers with five rounded petals. Leaves egg-shaped to oblong, obtusely pointed, with fine teeth. Riverbanks, etc.





SPIKENARD
(*Aralia racemosa*)



WHITE AVENS
(*Geum canadense*)

WHITE OR WHITISH FLOWERS

Fetter Bush (*Leucóthoë racemosa*). Heath family. April to June.

A tall shrub with flowers in long, one-sided, terminal, branching racemes. The flowers are somewhat bell-shaped. The leaves are broadly lance-shaped. Thickets. The generic name is an appellation sometimes given Ino, daughter of Cadmus, who threw herself into the sea, was rescued by dolphins, and worshipped on the Mediterranean shores.

Sweet Pepperbush (*Clethra alnifolia*). Heath family. July, August.

A tall shrub with terminal upright racemes, the flowers fragrant, with five sepals and five petals, rounded; style long. The leaves are inversely egg-shaped, toothed. Greek name for alder, from the similar foliage.

Leather Leaf (*Chamædaphne calyculata*). Heath family. April to June.

A rather low shrub, widely branching. The flowers are urn-shaped, small, in leafy racemes at the end of the branches. The leaves are oblong, stiff, evergreen, shiny above. Wet places. Daphne, pursued by Apollo, was changed to a laurel tree; the prefix signifies low.

Shad Bush (*Amelanchier canadensis*). Rose family. March to May.

A tree or large shrub, one of the first to blossom in early spring. The flowers are large, in open racemes; the petals five, well separated, oblong; the calyx has five tiny, pointed lobes. The leaves are egg-shaped to oval, their bases rounded, sharply toothed, usually somewhat heart-shaped. The fruit is a red berry, ripened early. Open woods, blooming freely in spring when the trees are still bare of foliage. *A. oblongifolia*, a shrub, has petals not over a half inch long, and pedicels not over an inch. Leaves oblong. Swamps.

See also PRIVET ANDROMEDA, p. 160.



FETTER BUSH
(*Leucothoe racemosa*)



SWEET PEPPERBUSH
(*Clethra alnifolia*)



LEATHER LEAF
(*Chamædaphne calyculata*)



SHAD BUSH
(*Amelanchier canadensis*)

WHITE OR WHITISH FLOWERS

GROUP XVI

Leaves alternate, simple. Herbs. Flowers in raceme or spike.

Green Wood Orchis (*Habenaria tridentata*). Orchis family. June, July.

Has a long leaf and one or two smaller, a three-lobed lip and twisted spur. Woods. White Fringed Orchis (*H. blephariglottis*) has a broad spike, fringed lip, spur long and slender. *Habena*, rein. **Lizard's Tail** (*Saururus cernuus*) (Pepper family) blooms June to August; a two-foot perennial with heart-shaped leaves, nodding spike; five stamens, no petals. **Spring Cress** (*Cardamine bulbosa*) (Mustard family), a low perennial with bulbous root, grows in the wet; four petals. April to June.



LIZARD'S TAIL
(*Saururus cernuus*)



SPRING CRESS
(*Cardamine bulbosa*)



WHITE FRINGED ORCHIS
(*Habenaria blephariglottis*)



GREEN WOOD ORCHIS
(*Habenaria tridentata*)

WHITE OR WHITISH FLOWERS

Wild Lily-of-the-Valley (*Maiáanthemum canadense*). Lily family. May to July.

A plant a few inches high, bearing a raceme of delicate flowers with *four-parted perianth* and four stamens. Leaves (generally two) long, pointed, *heart-shaped at base*, practically without stalks. Common in open woods. The name is derived from the Latin for May and the Greek for flower.

Wild Balsam-apple (*Echinocystis lobata*). Gourd family. July to September.

A climbing annual, with six-petalled flowers, axillary, small, polygamous, generally in racemes. Leaves thin, five-lobed. Fruit large, green, covered with spines. Rich soil. The generic name (hedgehog, and bladder) refers to the prickles on the fruit.

Three-leaved Solomon's Seal (*Smilacina trijolia*). Lily family. May, June.

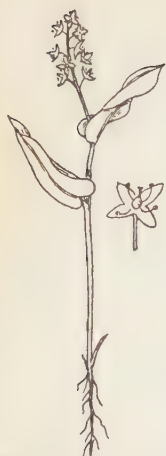
This plant resembles *Maiáanthemum*, but has *three leaves narrowed at the base and sheathing the stem*. The *perianth*, moreover, is *six-parted*, the style with three grooves. *Smilacina* is the diminutive of *Smilax*.

Star-flowered Solomon's Seal (*Smilacina stellata*). Lily family. May, June.

An upright perennial, average height one to one and one-half feet, from a stout root-stalk. The small flowers have a six-divided perianth, and are in delicate racemes. Leaves long-pointed, lance-shaped, narrowed at the base, clasping the stem somewhat. Damp ground.

Climbing False Buckwheat (*Polygonum scandens*). Buckwheat family.

A trailing or climbing delicate perennial bearing tiny flowers (with five-parted calyx, no corolla) in short racemes. Leaves somewhat heart-shaped and their stipules sheathe the stem (ocreae). Damp ground. Common. *Polygonum* means many-jointed.



WILD LILY OF THE VALLEY
(*Maianthemum canadense*)



WILD BALSAM-APPLE
(*Echinocystis lobata*)



THREE-LEAVED SOLOMON'S SEAL
(*Smilacina trifolia*)



STAR-FLOWERED SOLOMON'S SEAL
(*Smilacina stellata*)



CLIMBING FALSE BUCKWHEAT
(*Polygonum scandens*)

WHITE OR WHITISH FLOWERS

Water Pimpernel (*Sámolus Valerandi*). Primrose family.
May to September.

An upright perennial herb, six inches to a foot high, bearing little flowers (somewhat bell-shaped) in open raceme, with long and delicate flower-stalks. The persistent calyx is five-lobed; corolla five-lobed, stamens five. The leaves are without teeth, inversely egg-shaped or spoon-shaped, those at the base clustered. Wet places.

Shepherd's Purse (*Capsella bursa-pastoris*). Mustard family. April to September.

A common annual weed with average height of a foot. The racemes bear minute flowers with four petals and flat, triangular pods. The leaves at the base are clustered, deeply toothed, those of the stem pointed, without stalks. Everywhere. *Capsella* means a little box.

Poke. Garget (*Phytolacca decandra*). Pokeweed family.
June to September.

A noticeable perennial weed growing very large with stout, branching, red or purple stem, with raceme at the end, or opposite the leaves; the calyx white, with five rounded petal-like sepals; no petals. There are often tiny bracts on the flower-stalks. The leaves are large, pointed, sometimes a foot long. Low ground. The Greek for plant and the French for lake seem to have joined forces to denote the juice of the fruit.

Devil's Bit (*Chamalirium luteum*). Lily family. May to July.

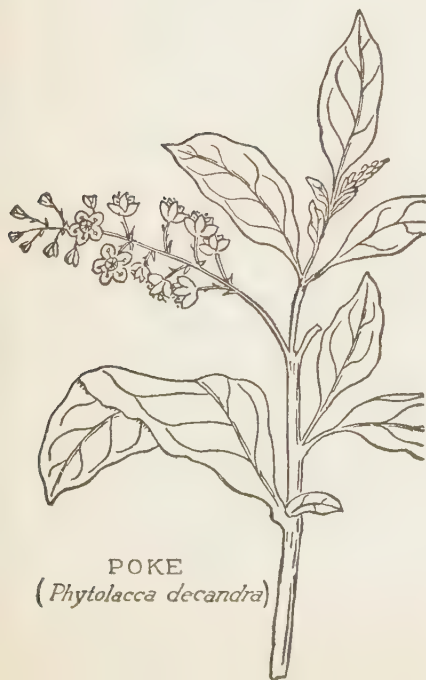
An upright herb sometimes two and one-half feet high, with leafy stem, ending in a long spike of small flowers. The perianth has six divisions, the staminate and pistillate flowers on different plants. The leaves are inversely lance-shaped, without stalks, those at the base somewhat spoon-shaped. Moist ground. Western Massachusetts, West and South. The generic name, from the Greek, signifies a low lily.



WATER PIMPERNEL
(*Samolus Valerandi*)



SHEPHERD'S PURSE
(*Capsella Bursa-pastoris*)



POKE
(*Phytolacca decandra*)



DEVIL'S-BIT
(*Chamaelirium luteum*)

WHITE OR WHITISH FLOWERS

GROUP XVII

Leaves alternate, simple. Flowers not in raceme or spike.
Creeping or climbing plant.

The familiar Wintergreen is included here because the visible plants are branches of a deep horizontal stem.

Moonseed (*Menispermum canadense*). Moonseed family.
June, July.

A delicate climber bearing small flowers in open axillary clusters; sepals and petals similar (maximum number of each eight) but petals smaller; stamens (numerous) and pistils on different plants (dioecious). The leaves are three- to seven-angled, or lobed, shield-form, with stalk attached to lower surface. Woods. West Quebec, West and South.

Arrow-leaved Tear-thumb (*Polygonum sagittatum*). Buckwheat family. July to September.

An inconspicuous annual with small square stem, generally climbing by its backward-bending prickles. The flowers are tiny, pale-rose or white, with no corollas, in head or dense cluster. The leaves are arrow-shaped. Low grounds.

Water Pennywort (*Hydrocotyle americana*). Parsley family. All summer.

An inconspicuous plant with fragile stem that creeps over the ground. The tiny flowers, in close little clusters (umbels), in the axils of the kidney-shaped leaves, have five petals, five stamens. Damp places. From the Greek for water-cup.

White Clover (*Trifolium repens*). Pulse family. May to October.

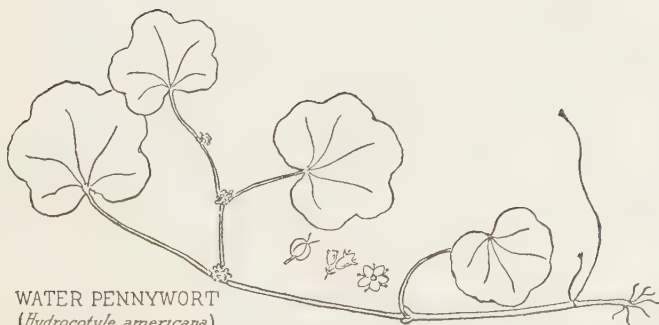
A perennial with stems spreading over the ground sending up leaf-stalks and flower-stalks bearing spherical flower-heads with papilionaceous florets. Leaflets somewhat inversely heart-shaped. Fields, etc.



MOONSEED
(*Menispermum canadense*)



ARROW-LEAVED TEAR-THUMB
(*Polygonum sagittatum*)



WATER PENNYWORT
(*Hydrocotyle americana*)

WHITE OR WHITISH FLOWERS

Marsh Bellflower (*Campanula aparinoides*). Bluebell family. June, July.

A perennial herb with stem too weak to stand upright, bearing on the ends of its thread-like branches small, solitary, dainty white or light-blue open bells. There are fine backward-bending bristles on the stem. Its resemblance to the Bedstraw or Goosegrass, *q.v.*, suggests the specific Latin name. The corolla has five spreading pointed lobes. The leaves are narrowly lanceolate, with strong midrib and delicate veins, sometimes with inconspicuous teeth. Marshes amongst grass. The generic Latin name signifies a little bell.

Field Bindweed (*Convolvulus arvensis*). Convolvulus family. May to September.

A slender trailing perennial a foot or two long, often branched, bearing small white or pinkish Morning Glories, not over an inch across. Each flower is on a long, slender stalk; often two, sometimes three or four, are borne on the same stalk (peduncle), which has one to three small bracts. The leaves are somewhat arrow-shaped, an inch or two long. Waste places. The Latin name signifies rolled together.

Cheeses (*Malva rotundifolia*). Mallow family. May to October.

A biennial with procumbent stem and a few bluish-white flowers in the axils, averaging one-half inch broad; petals five, notched, veined. The leaves are round, long-stalked, the edges somewhat lobed and round-toothed. Seed-receptacles round and flat. A common garden weed. *Malva* is the Latin name for mallow, perhaps derived from the Greek word meaning to make soft, referring either to emollient or to relaxing qualities.



MARSH BELL FLOWER
(*Campanula aparinoides*)



FIELD BINDWEED
(*Convolvulus arvensis*)



CHEESES
(*Malva rotundifolia*)

WHITE OR WHITISH FLOWERS

Wintergreen (*Gaultheria procumbens*). Heath family.

June to September.

A little shrub, apparently a few inches high, in reality an underground stem giving off rising branches a few inches high, with evergreen oval leaves, obscurely toothed. The little flowers are few, nodding in the axils, with urn-shaped corollas, five-toothed. Open woods. Named for Dr. Gaultier.

Creeping Snowberry (*Chiogenes hispidula*). Heath family. May, June.

A trailing, dainty vine with slender stem a few inches to a foot long, and small, evergreen leaves with flowers in their axils. Corolla bell-shaped, four-cleft; stamens eight. Fruit a round white berry. Bogs, woods. Greek signifies snow-born.

GROUP XVIII

Leaves alternate, simple. Flowers not in raceme or spike.
Shrubs.

New Jersey Tea (*Ceanothus americanus*). Buckthorn family. May to July.

A shrubby plant, not over three feet high, bearing delicate flowers in close clusters, the (five) petals with hoods and claws; five stamens; style three-cleft. The leaves are egg-shaped, pointed, toothed, sometimes heart-shaped at base, short-stalked, three-veined. Woodlands.

Meadow-sweet (*Spiraea latifolia*). Rose family. June to August.

A common shrub of the fields, not over three feet high, bearing terminal clusters of small flowers, the clusters narrowing at the top. The flowers are white or pinkish; calyx five-cleft, petals five, stamens many, prominent, giving a fuzzy effect. The leaves are oval, toothed, with stalks. Meadows, etc. From the Greek meaning twisting, the pods twisted in some species (Britton and Brown).



WINTERGREEN
(*Gaultheria procumbens*)



CREeping SNOWBERRY
(*Chiogenes hispidula*)



NEW JERSEY TEA
(*Ceanothus americanus*)



MEADOW-SWEET
(*Spiraea latifolia*)

WHITE OR WHITISH FLOWERS

High-bush Blueberry (*Vaccinium corymbosum*). Heath family. May, June.

A shrub with maximum height of ten feet, bearing decorative, close clusters of small, urn-shaped flowers. The leaves are inversely egg-shaped or oval. A noticeable plant of the swamps and thickets when in bloom, but not so easily recognized by the casual observer as when it is in fruit. *Vaccinium* is the Latin for blueberry, but is used as a generic name to include many other species.

Bog Rosemary (*Andromeda glaucophylla*). Heath family. May, June.

A branching shrub generally not over one foot, but sometimes two feet high. The flowers are small, round-bell-shaped, nearly closed at the end, pink or white in umbel-like clusters, on short, stout, curved stalks; corolla five-toothed, the calyx five-toothed and similarly colored. The thickly set leaves are evergreen, long and narrow, stiff, dark-green, with edges rolled back; the short flower-stalks and under side of the leaves are white and very finely hairy. Bogs.

The application of the name is not clear, since *Andromeda* was chained to a rock, not planted in a bog. Gray states that the name was fancifully given by Linnæus.

Great Laurel (*Rhododendron maximum*). Heath family. June, July.

A tall shrub bearing flowers with bell-shaped corolla, one and one-half to two inches broad. The leaves are several inches long, thick, pointed. Damp woods. The Greek name signifies rose-tree.



BOG ROSEMARY
(*Andromeda glaucophylla*)



HIGH-BUSH BLUEBERRY
(*Vaccinium corymbosum*)



GREAT LAUREL
(*Rhododendron maximum*)

WHITE OR WHITISH FLOWERS

Squaw Huckleberry (*Vaccinium stamineum*). Heath family. April to June.

A branching shrub bearing *loose* clusters; anthers prominent. Leaves egg-shaped or oval. Woods. To the same family belongs Stagger-bush (*Lyonia mariana*) (May to July), with *close* clusters. Leaves oblong or oval. Low ground. Also Mountain Cranberry (*V. Vitis-Idæa*, var. *minus*) (June, July), an ever-green creeper with upright branches. The (terminal) flowers have a four-toothed calyx, four-lobed corolla. Leaves small, thick, rounded, dotted beneath, short-stemmed. Probably the "Wine-berry" of the Norsemen (Fernald). Rocky ground. Also Privet Andromeda (*Lyonia ligustrina*) (May to July), a shrub bearing numerous globular flowers in a cluster; stamens hairy. Leaves oval or inversely egg-shaped; abruptly pointed. Swamps. Named for John Lyon.



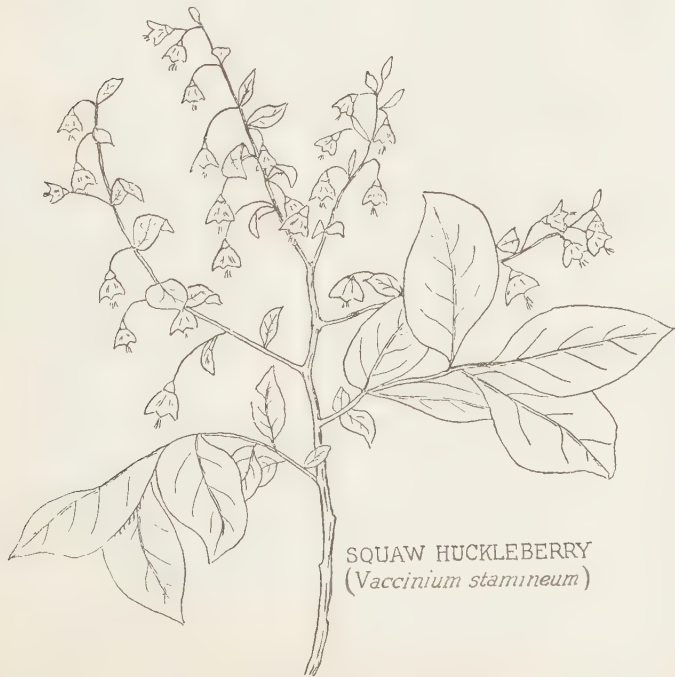
PRIVET ANDROMEDA
(*Lyonia ligustrina*)



STAGGER-BUSH
(*Lyonia mariana*)



MOUNTAIN CRANBERRY
(*Vaccinium Vitis-Idæa*)
var. minus



SQUAW HUCKLEBERRY
(*Vaccinium stamineum*)

WHITE OR WHITISH FLOWERS

Clammy Azalea (*Rhododendron viscosum*). Heath family.

June, July.

A branching shrub bearing large (sometimes two inches long), fragrant, showy flowers in clusters, appearing after the leaves; corolla clammy, irregularly five-lobed. Leaves oblong to inversely egg-shaped, short-stalked. Swamps, especially near the coast. Resembles *R. nudiflorum*, illustrated on page 207.

Mountain Laurel (*Kalmia latifolia*). Heath family. May,

June.

This shrub makes a fine showing in the spring on the hillsides. Flowers (white or pinkish, three-fourths to one inch broad) in large clusters; corolla saucer-shaped, five-lobed, with ten stamens and long style. Leaves thick and shiny. Named for Peter Kalm, a pupil of Linnæus.

Labrador Tea (*Ledum groenlandicum*). Heath family.

May, June.

A shrub a few feet high; branches woolly; flowers small; five petals. Leaves evergreen, stiff, oblong, edges rolled back, under side rusty. Swamps and woods, especially northward.

Groundsel Tree (*Baccharis halimifolia*). Composite family.

September onward.

A shrub with maximum height of nine feet. The delicate flowers are borne in scattered heads or panicles, pistillate and staminate on different plants, the former with slender tubular corolla and long down (pappus). The leaves are inversely egg-shaped, stalked. Near coast. Named in honor of Bacchus, though this was not the plant to which the name was originally applied (Britton and Brown).

Chokeberry (*Pyrus arbutifolia*, var. *atropurpurea*). Rose family. March to May.

This shrub, three to six feet high, bears small flowers at the top. Five rounded petals; stamens red-tipped. Leaves oblong or inversely lance-shaped. Woods, etc.



GROUNDSEL TREE
(*Baccharis halimifolia*)



MOUNTAIN LAUREL
(*Kalmia latifolia*)



LABRADOR TEA
(*Ledum groenlandicum*)



CHOKEBERRY
(*Pyrus arbutifolia*, var. *atropurpurea*)

WHITE OR WHITISH FLOWERS

GROUP XIX

Leaves alternate, simple. Herbs. Flowers not in raceme or spike. Flowers composite.

White Asters (*Aster*, a star). Composite family. Late summer, autumn.

“Wild asters in the country lane,
A cricket’s lonely cry;
A crimson rose with heart laid bare,
Breathing her fevered sigh.”

—*Agnes Lockhart Hughes.*

The common white wayside flower of autumn. The different species, mostly perennial, vary from one to eight feet in height. The flowers have yellow disks of tubular, perfect flowers, and spreading white pistillate rays; they vary in number and size from few and large, as in the Sharp-leaved White Aster (*Aster acuminatus*) to tiny and numerous, as in the Heath Aster (*Aster ericoides*). The Aster is distinguished from Daisy Fleabane by its broader rays and its generally smooth stem, besides the fact that it blossoms late in the season.

Tall Flat-topped White Aster (*Aster umbellatus*). Composite family. July to October.

A tall leafy aster often noticeable from the road. It has a smooth stem, sometimes six feet high or over, and a large, flat cluster of flowers at the top. The flowers are one-half inch to nearly an inch broad; the rays, averaging a dozen, are apt to bend downward. The leaves, three to five inches long, are lance-shaped, long-pointed, not toothed, the upper without stalks. This aster is apt to grow in profusion at the edge of woods, in low ground.



TALL FLAT-TOPPED WHITE ASTER
(*Aster umbellatus*)

WHITE OR WHITISH FLOWERS

White Wreath Aster. Many-flowered Aster (*Aster multiflorus*). Composite family. July to September.

An aster one to four feet tall. The stem is light-colored, finely hairy, freely branching. The noticeable feature is the densely flowering branches, with flowers mostly on one side (secund). The flower-heads, not over a third of an inch across, are generally separately placed at the ends of delicate branches bearing tiny leaves. Each flower-head has ten to twenty white (occasionally purplish) rays, the few disk-flowers are tubular, yellow, becoming brownish. The lowermost leaves are lance-shaped, pointed, the others are narrow, stiff, without stalks, and without teeth, but with rough edges and sharply defined midribs, the uppermost linear.

This extremely attractive aster, with its wealth of blossoms and dark-green foliage, grows in such barren and otherwise unsightly places as vacant lots on the outskirts of the city.

The general resemblance of the Many-flowered Aster to the golden-rod, to which Blanchan calls attention, is noticeable in the cut, though the form of the flower-cluster is not just that of any golden-rod, and the flower-heads are larger, excepting for those of *Solidago squarrosa*.

The distribution of this aster is extensive to the West and South, though Mathews states it is rare in Maine, and absent in northern New Hampshire. It is credited with great variation in height, thus: "perhaps only a foot, sometimes over a man's head" (Blanchan); Britton and Brown place it at one to seven feet, but at the risk of some giant specimen being mistaken, I have followed the general rule of keeping within such dimensions as are ordinarily to be found.



WHITE WREATH ASTER
(*Aster multiflorus*)

WHITE OR WHITISH FLOWERS

Sharp-leaved White Aster (*Aster acuminatus*). Composite family. June to October.

An aster one to three feet high, with loose cluster of flowers at the top. The flower is an inch or more across, with about fifteen straggling white rays, one-half inch or more long. The leaves are broadly lance-shaped, coarsely toothed, pointed, practically without stalks. Woods. Common.

Tradescant's Aster (*Aster Tradescanti*). Composite family. August to October.

A slender, leafy-branched aster. The numerous flowers are about half an inch broad. Stem-leaves lance-shaped, generally toothed, practically without stalks. Fields, etc.

White Heath Aster (*Aster ericoïdes*). Composite family. September onward.

A smooth, stiff, branching aster one to three feet high, bearing many flower-heads with maximum breadth of one-half inch. The flower-stalks bear tiny stiff leaves; the branches and stem are covered with slender rigid leaves. This is a common aster, noticeable in waste places; it has many names, such as Michaelmas Daisy and Farewell Summer.

White-topped Aster (*Sericocarpus asteroïdes*). Composite family. July to September.

A very common modest flower with stiff slender stem a foot or two high, branching at the top, where it bears flowers resembling little asters, each with a few white rays. The peculiarity of the flower is its involucre of white bracts with green tips, bent back. The numerous leaves clustered at the base are somewhat spoon-shaped, those on the stem are oblong or lance-shaped, generally toothed. Open woods. The Latin names signify silky fruit, and aster-like.



WHITE HEATH ASTER
(*Aster ericoides*)



TRADESCANT'S ASTER
(*Aster Tradescanti*)



SHARP-LEAVED WHITE ASTER
(*Aster acuminatus*)



WHITE-TOPPED ASTER
(*Sericocarpus asterooides*)

WHITE OR WHITISH FLOWERS

Daisy Fleabane (*Erigeron ramosus*). Composite family.

May to November.

An upright plant, a foot or two high, with slender stem branching at the top and bearing a loose cluster of small flowers like asters, but with *very narrow*, white pistillate quarter-inch rays, sometimes with suggestion of lavender. The disk, of perfect, tubular flowers, is greenish-yellow; the flower-stalks are free from leaves; the stem is somewhat hairy, but the *hairs do not stand out from the stem* as in the next species. *Upper leaves linear or very narrowly lanceolate*, not toothed; lower broader, somewhat spoon-shaped and sometimes with teeth. Common in waste places. *Erigeron* is from the Greek for spring, and old, referring to the white bristles (pappus).

Sweet Scabious (*Erigeron annuus*). Composite family.

May to November.

Similar to Daisy Fleabane, but *stouter and taller*, often reaching four feet, with *toothed, lance-shaped leaves*, and with *hairs standing out from the stem*.

Feverfew (*Chrysanthemum Parthenium*). Composite family. June to September.

An upright perennial herb, a foot or two high, with flowers resembling very small daisies, loosely clustered at the top and in the upper axils, on long stalks. White rays pistillate, tubular, disk-flowers (yellow) perfect. The leaves are deeply cut into lobes with edges coarsely toothed. (Greek for golden, and flower.)

Ox-eye or White Daisy. White-weed (*Chrysanthemum Leucanthemum*). Composite family. June to September.

A decorative perennial pest, bearing large flower-heads, with pistillate rays and yellow disk of perfect tubular flowers. Root-leaves broad at the end, with stalks; stem-leaves partly clasping, all pinnately cut or toothed. Fields and meadows.



DAISY FLEABANE
(*Erigeron ramosus*)



SWEET SCABIOUS
(*Erigeron annuus*)



FEVERFEW
(*Chrysanthemum Parthenium*)



OX-EYE DAISY
(*Chrysanthemum Leucanthemum*)

WHITE OR WHITISH FLOWERS

(*The following Composites have no ray-flowers.*)

Common Everlasting (*Gnaphalium polycephalum*). Composite family. August, September.

A woolly, fragrant, upright annual, a foot or two in height, with a cluster of tubular (perfect and pistillate) flowers at the top. Leaves lance-shaped, tapering at the base, woolly beneath. Fields and woods. (Greek for a downy plant.) Pearly Everlasting (*Anaphalis margaritacea*) is a noticeable perennial. Average height eighteen inches. Flowers small, brown, tubular, diœcious, with pearly scales. Many lance-shaped, long-pointed, toothless leaves. Dry ground. Plantain-leaved Everlasting (*Antennaria plantaginifolia*) is the Everlasting of early spring, a perennial, with woolly stem varying from a few inches to one and one-half feet. The small flower-heads of tubular (generally diœcious) flowers are in a cluster at the top. Stem-leaves narrowly lance-shaped, basal leaves inversely lance- or egg-shaped. Banks. The Latin name refers to the pappus suggesting antennæ.

Silver-rod (*Solidago bicolor*). Composite family. July to September.

A perennial with upright, generally unbranched stem a foot or two high, along which are clustered the small flowers with whitish pistillate rays, few in a cluster. Leaves pointed. Common in dry ground. Name from *solidare*, to make whole.

White Lettuce (*Prenanthes alba*). Composite family. August, September.

An upright perennial, usually unbranched, with smooth stem two to five feet high, with bloom, rising from a spindle-shaped tuber. The cream-colored, perfect flowers in flower-heads form drooping clusters at or near the top. The leaves are variously shaped, hastate, lobed, etc., the upper lance-shaped. Open woods and roadsides. Greek signifies drooping blossom.



COMMON EVERLASTING
(*Gnaphalium polycephalum*)



SILVER-ROD
(*Solidago bicolor*)



PEARLY EVERLASTING
(*Anaphalis margaritacea*)



WHITE LETTUCE
(*Prenanthes alba*)



PLANTAIN-LEAVED EVERLASTING
(*Antennaria plantaginifolia*)

WHITE OR WHITISH FLOWERS

Horse-weed (*Erigeron canadensis*). Composite family.
Summer and autumn.

An upstanding weed, bearing flower-heads in panicle. Ray-flowers pistillate, disk-flowers perfect, with four-toothed tubular corolla. Leaves narrow, crowded.

GROUP XX

Leaves alternate, simple. Flowers not in raceme, spike, or head. Herbs. Flowers not composite.

Spurge (*Euphorbia corollata*). Spurge family. April to October.

A perennial with maximum height of three feet. Flowers in umbel, apparently of five petals, really with white involucre subtending either staminate or pistillate tiny florets (monœcious). If staminate the florets thus subtended are numerous; if pistillate, there is only one, soon pushing up beyond the involucre on a long stalk. Leaves egg-shaped to linear. Rich soil, Ontario, West and South. Euphorbus, physician to Juba, the Numidian king.



SPURGE
(*Euphorbia corollata*)



HORSE-WEED
(*Erigeron canadensis*)

WHITE OR WHITISH FLOWERS

Bastard Toad-flax (*Comandra umbellata*). Sandalwood family. April to July.

A distinctive weed of the open woods, perennial, with stem not over one foot high, from horizontal root-stalk. Flower-stalks several-flowered; styles slender; calyx (one-sixth inch high) greenish-white with five star-like lobes; five stamens, one opposite each lobe to which it is connected by hairs, whence the Greek name signifying to let the hair grow. Leaves oblong, blunt-pointed, short-stalked, without teeth. Dry ground.

Thorn Apple (*Datura Stramonium*). Nightshade family. July to September.

An annual several feet high; flowers, Morning Glory-like, four inches long, short-stalked. Leaves rather large. Waste ground. (Hindoo *dhatura*.)

Upright Bindweed (*Convolvulus spithameus*). Convolvulus family. May to August.

An upright perennial with stem six inches to a foot high, bearing at the top a Morning Glory nearly two inches long, with two large bracts at its base. Leaves heart-shaped at base. Dry ground.

May Apple. Mandrake (*Podophyllum peltatum*). Barberry family. May.

A perennial herb whose flowering stem (a foot high) bears two large leaves and drooping flower, two inches broad, with six sepals (soon falling) and about seven inversely egg-shaped petals, twice as many stamens. From separate root-stalk rises the long stalk of a round, lobed leaf, sometimes a foot across, with stalk inserted in the middle (peltate). Open woods, Western Quebec, West and South. To appreciate the name "Umbrellas" one must see it before the leaves unfold (see cut). (Greek foot, and leaf.)



THORN APPLE
(*Datura Stramonium*)



UPRIGHT BINDWEED
(*Convolvulus spithameus*)



BASTARD TOAD-FLAX
(*Comandra umbellata*)



MAY-APPLE
(*Podophyllum peltatum*)

WHITE OR WHITISH FLOWERS

Canada Violet (*Viola canadensis*). Violet family. May to July.

A violet a foot or more high. The petals are white, the upper ones with violet on the under side. The leaves are heart-shaped. Rich woods.

Cloudberry. Baked-apple Berry (*Rubus Chamæmorus*)
Rose family. June, July.

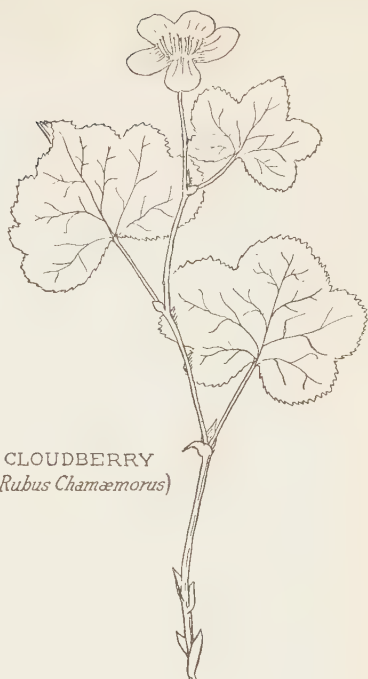
A perennial under a foot high, with two or three leaves and flower, one-half to one inch broad, with five inversely egg-shaped petals. The leaves are broadly heart-shaped or kidney-shaped, lobed and toothed. Bogs from northern New England northward. Some have regarded this as the "Wine Berry" of the Norsemen, but Fernald seems to have shown conclusively that this distinction belongs to the Mountain Cranberry (*Vaccinium vitis-idaea*). The generic name is derived from the Latin *ruber*, red, the specific name from the Latin *morus*, mulberry, with the Greek prefix which means low.

Umbrella Leaf (*Diphylleia cymosa*). Barberry family.
May, June.

A perennial with an enormous leaf (one or two feet) growing from the base on a long stalk, and two smaller ones on the stem. Flowers numerous, in umbellate cluster, two or three inches broad; six petals, six sepals, soon falling. Leaf-stalks inserted inside the edge of the cleft leaf (peltate). Woods of Pennsylvania and southward. The Greek name signifies a double leaf.



CANADA VIOLET
(*Viola canadensis*)



CLOUDBERRY
(*Rubus Chamæmorus*)



UMBRELLA LEAF
(*Diphylleia cymosa*)

WHITE OR WHITISH FLOWERS

False Solomon's Seal (*Smilacina racemosa*). Lily family.
May to July.

A very common plant by country roadsides and in open woods. From a stout root-stalk rises a single curved stem with average height of two feet, ending in an upright cluster (compound raceme) of small white flowers; the perianth has six divisions. The leaves are long, pointed, with parallel veins without stalks, or the lower with short stalks. Dry ground. *Smilacina* is diminutive of *Smilax*.

Stout Stenanthium (*Stenanthium robustum*). Lily family.
July to September.

A plant with stout stem, with maximum height of five feet, having a panicle (or raceme) of flowers (half an inch broad) at the top. The flowers have a six-divided perianth with pointed divisions, each about one-fourth inch long, white and green. The leaves are long and slender. Found in moist ground in summer. Pennsylvania, South and West. The Greek name signifies narrow, and flower.

Grass-leaved Stenanthium (*Stenanthium gramineum*).
Lily family. August, September.

Similar but with slender stem, with maximum height of four feet and leaves not over one-third inch in width. Said by Britton and Brown to grow in dry soil in Virginia and Kentucky, Florida to Alabama, chiefly in the mountains, while the Stout *Stenanthium* grows in moist soil in southern Pennsylvania and Ohio to South Carolina and Tennessee. Gray gives only the Grass-leaved *Stenanthium* and states that the Stout *Stenanthium* is doubtfully distinct. The appended drawing has been made from an herbarium specimen of the Grass-leaved *Stenanthium*.



GRASS-LEAVED STENANTHIUM
(*Stenanthium gramineum*)



FALSE SOLOMON'S SEAL
(*Smilacina racemosa*)

PINK AND ROSE-COLORED FLOWERS
(INCLUDING MAGENTA)

CHART OF PINK AND ROSE-COLORED FLOWERS

Directions.—First note whether plant falls in Class I, II, or III, then follow out to right. When group-number is reached turn to page indicated and look through the group. *If flower is not found, look in Blue and Purple section.*

Class I.—Plants with leaves opposite ¹ { Stem four-sided = Group I, p. 186
Stem not four-sided { Flowers with five petals ² = Group II, p. 188
Flowers not with five petals = Group III, p. 192

Class II.—Plants with leaves whorled ³ = Group IV, p. 202

Class III.—Plants with leaves
neither opposite nor whorled { Trailing or spreading = Group V, p. 204
Shrub ⁴ = Group VI, p. 206
Herb ⁵ { Leaves with three leaflets = Group VII, p. 210
Leaves not with three leaflets { Flowers in spike, ⁶ head, ⁶
or raceme ⁶ = Group VIII, p. 214
Flowers not in spike, head,
or raceme = Group IX, p. 220

¹ Arranged in pairs, *i.e.*, opposite each other, *on the stem*, not at the root.

² The parts ordinarily giving the flower its distinctive color.

³ Three or more on a level, *circling the stem*, not at the root.

⁴ Woody plant smaller than a tree.

⁵ Plant with soft stem dying down every year.

⁶ See illustration on p. xvii of Introductory Chapter.

PINK AND ROSE-COLORED FLOWERS

(INCLUDING MAGENTA)

GROUP I

Leaves opposite. Stem four-sided.

Obedient-plant (*Physostègia virginiana*). Mint family.
June to September.

A perennial, three feet high, with flowers (three-fourths inch) in spike remaining where placed when bent; calyx five-toothed, corolla funnel-form, two-lipped. Leaves thick, lance-shaped to oblong.

Wild Basil. Field Basil (*Satureja vulgaris*). Mint family.
June to August.

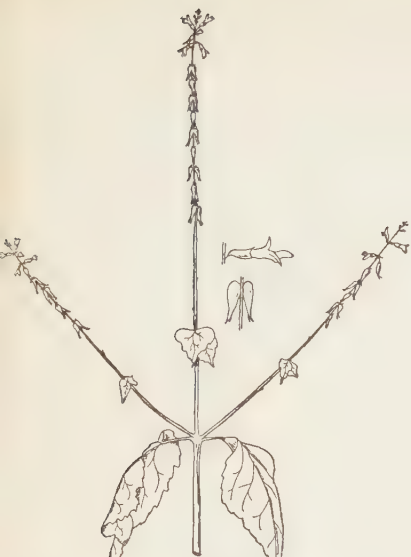
A perennial, maximum height one and one-half feet, with clusters of small, pink-white, or purple flowers. Corolla two-lobed, calyx two-lipped, with three bristly teeth on the upper lip and two on the lower. Many linear bracts. Leaves egg-shaped, blunt-pointed. Open ground.

Hemp Nettle (*Galeopsis Tetrahit*). Mint family. June to September.

A coarse plant sometimes reaching three feet. The hairy stem is enlarged at the joints. Magenta flowers in whorls; calyx bell-shaped with five teeth; corolla two-lipped, lower lip notched. Leaves egg-shaped, pointed, coarsely toothed. Waste places. Common.

Lopseed (*Phryma Leptostàchya*). Lopseed family. June, July.

A perennial, maximum height three feet, with stiff branches. Seed-vessels bent back; calyx cylindrical, two-lipped; corolla two-lipped. Leaves thin, rough, egg-shaped, pointed.



LOPSEED
(*Phryma Leptostachya*)



OBEDIENT-PLANT
(*Physostegia virginiana*)



HEMP NETTLE
(*Galeopsis Tetrahit*)



WILD BASIL
(*Satureja vulgaris*)

PINK AND ROSE-COLORED FLOWERS

Meadow Beauty (*Rhexia virginica*). Melastoma family.

July to September.

A striking perennial, one foot or over, from tuber-bearing root. Showy flowers (one and one-fourth inches); calyx urn-shaped, four-pointed; petals four; stamens eight, style long and slender. Leaves lance-shaped to egg-shaped, without stalks, toothed, hairy, pointed. Fields and marshes.

GROUP II

Leaves opposite. Stem not four-sided. Flowers with five petals.

All of the pinks are placed in this group.

Marsh St. John's-wort (*Hypericum virginicum*). St.

John's-wort family. July, August.

A perennial, with smooth, finally ruddy stem, a foot high or more, bearing small clusters of pink flowers (one-half inch) with oblong petals and prominent stamens. The rounded leaves (sometimes rose-tinted) sometimes clasp the stem. Cranberry bogs. Fruit a long, pointed, magenta pod.

Bouncing Bet (*Saponaria officinalis*). Pink family.

Summer.

A tall, stout perennial, with a large cluster of (one inch) flowers, often in clumps by the roadside. The petals are clawed. The leaves are pointed, egg-shaped to lance-shaped. Dry ground. Latin *sapo*, soap.

Moss Pink (*Phlox subulata*). Polemonium family. April to June.

A low plant with few-flowered cluster. The calyx has fine, stiff teeth, the corolla is salver-form with long tube and five lobes, generally notched. The leaves are lance-shaped or linear, closely set, on the hairy stem. Dry hills, often in broad mats. New York, South and West. (Greek for flame.)



MEADOW BEAUTY
(*Rhexia virginica*)



MARSH ST. JOHN'S-WORT
(*Hypericum virginicum*)



MOSS PINK
(*Phlox subulata*)



BOUNCING BET
(*Saponaria officinalis*)

PINK AND ROSE-COLORED FLOWERS

Herb Robert (*Geranium Robertianum*). Geranium family.
May to October.

A branching annual or biennial, not over one and one-half feet. The reddish stem has scattered hairs. There are one to three small flowers on a stalk. Fruit in form of a long beak, the carpels springing away at the base to discharge the seed. The leaves are palmately three-divided, sometimes five-divided, the divisions irregularly cut. Woods and shady places. (Greek for crane, referring to shape of fruit.)

Sand Spurrey (*Spergularia rubra*). Pink family. All summer.

A small matted plant, annual or biennial, with slender stem, a few inches high, bearing very small flowers at the top and in the axils. Leaves linear, in pairs, but with others clustered in the axils. Sandy soil near the coast. (Latin *spargare*, to scatter, of the seeds.)

Deptford Pink (*Dianthus Armeria*). Pink family.
July.

A rather common, *very stiff*, slender annual with *small, deep-pink blossoms* at the ends of the ascending branches; styles two. The leaves are long, slender, and hairy. Fields and roadsides. Greek signifies flower of Jupiter.

Wild Pink (*Silene pennsylvanica*). Pink family. April to June.

A low but rather noticeable perennial when many are in bloom together in the open woods (see page 108 for derivation). The flowers, with wedge-shaped petals and three styles, are in clusters. The leaves on the stem are lance-shaped, *those at the base spoon-shaped*, with hairy stalks. Dry ground. This is doubtless the plant to which Wordsworth refers in the line—

“The wild pink crowns the garden wall.”



SAND SPURREY
(*Spergularia rubra*)



HERB ROBERT
(*Geranium Robertianum*)



DEPTFORD PINK
(*Dianthus Armeria*)



WILD PINK
(*Silene pennsylvanica*)

PINK AND ROSE-COLORED FLOWERS

Ragged Robin (*Lychnis flos-cuculi*). Pink family. June to September.

An unbranched perennial, a foot or two high, with several flowers (three-fourths inch) in umbellate clusters at the top. The petals are divided into narrow lobes. The leaves are narrowly lance-shaped. (Greek for lamp.)

This was probably the Crow-flower of Elizabethan times—

“ There with fantastic garlands did she come,
Of crow-flowers, nettles, daisies and long purples.”

Spring Beauty (*Claytonia virginica*). Purslane family. March to May.

An early perennial, with low weak stem rising from a deeply buried tuber. The blossoms, on slender stalks in an open cluster, have two sepals, five spreading petals, and measure one-half to nearly an inch in diameter. Two linear to lance-shaped leaves. Open woods, more common southward. Named for John Clayton, American botanist.

GROUP III

Leaves opposite. Stem not four-sided. Flowers not with five petals.

Slender Gerardia (*Gerardia tenuifolia*). Figwort family. August-September.

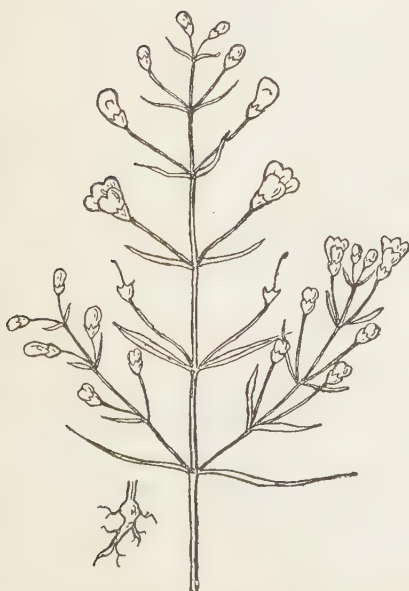
A slender branching annual (named for Gerarde), generally under one and one-half feet; leaves linear and sharp-pointed, one-half to one inch long. Magenta flowers (three-fourths inch long) on stalks from axils; calyx bell-shaped, corolla tubular, five-lobed; flower-stalks generally as long as the flower. Dry ground. Common. Purple Gerardia (*Gerardia purpurea*) is similar but with larger leaves and flowers, and flower-stalks shorter than the calyx. Sea-side Gerardia (*Gerardia maritima*) is an annual, under a foot high, with flowers on stalks hardly longer than the calyx until in fruit.



SPRING BEAUTY
(*Claytonia virginica*)



RAGGED ROBIN
(*Lychnis Flos-cuculi*)



SLENDER GERARDIA
(*Gerardia tenuifolia*)

PINK AND ROSE-COLORED FLOWERS

Purple-leaved Willow-herb (*Epilobium coloratum*).

Evening Primrose family. Summer.

An upright herb, maximum height three feet. Its tiny flowers nod at the end of apparently long, thick flower-stalks, really long, slender calyx-tubes, later to become seed-pods. Four petals, generally notched. Leaves (partly opposite) long and narrowly lance-shaped, toothed, with short stalks. Stem sometimes downy at the top. Wet ground. Greek signifies upon a pod.



PURPLE-LEAVED WILLOW-HERB
(*Epilobium coloratum*)

Climbing Hemp-weed (*Mikania scandens*). Composite family. Summer.

The only member of the family climbing over bushes. The flowers are perfect, tubular, small, the flower-heads (each with involucre of four bracts and containing four bell-shaped florets) in clusters; the leaves are heart-shaped, sinuate, with stalks. Thickets on streams. Named for Joseph Gottfried Mikan.



CLIMBING HEMPWEED
(*Mikania scandens*)

PINK AND ROSE-COLORED FLOWERS

Twin-flower (*Linnæa borealis*, var. *americana*). Honey-suckle family. June, July.

These delicate fragrant blossoms grow in pairs from the branches of a prostrate vine which carpets the ground or climbs over tree-trunks in damp woods. Corolla bell-shaped, five-pointed; four stamens; two small bracts below the flower; calyx, bracts, and flower-stalks hairy. The leaves are round with wavy edges and short stalks. Woods. Named for Linnæus.

Pale Laurel (*Kalmia polifolia*). Heath family. Spring, early summer.

A foot-high bog-plant bearing a few flowers (one-half inch) in cluster (corymb) at the top; calyx five-parted; corolla bowl-shaped, five-lobed. Leaves nearly without stalks, oblong, whitish beneath, with edges rolled back. This specimen, sketched in the Bangor Bog, was surrounded by clumps of Labrador Tea. Named for Peter Kalm.

Spreading Dogbane (*Apocynum androsæmifolium*). Dogbane family. June, July.

A roadside branching perennial a few feet high, with leaves on the same plane, by twisting of stalks bears clusters of small pinkish blossoms; the corolla is bell-shaped with five lobes rolled back. The leaves are egg-shaped, with stalks, pointed. Common in dry ground. Greek signifies *from* and *dog*.

Spiked Centaury (*Centaureum spicatum*). Gentian family. May to September.

An annual, with erect stem, six inches to one foot high. One or two magenta-pink flowers in an axil. The corolla is cylindrical and five-lobed; the calyx has five long, pointed lobes. Leaves small, oblong, without stalks. Coast of Nantucket and Portsmouth, Va. Latin *centum* and *aureum*, because of its value.



TWIN-FLOWER
(*Linnaea borealis*, var. *americana*)



PALE LAUREL
(*Kalmia polifolia*)



SPREADING DOGBANE
(*Apocynum androsæmifolium*)



SPIKED CENTAURY
(*Centaureum spicatum*)

PINK AND ROSE-COLORED FLOWERS

MILKWEEDS (INCLUDING POKE MILKWEED)

Common Milkweed. Silkweed. (*Asclepias syriaca*). Milkweed family. June to August.

The familiar roadside milkweed, a perennial with stout, finely hairy stem, maximum height five feet, containing milky juice. Flowers in large, drooping umbels, with *sickening odor*, varying from pink to greenish-yellow or brown. Calyx and corolla five-parted, divisions of the corolla bent downward; above the corolla rises a crown (corona) of upright "hoods" one-fourth to three-eighths inch across. The leaves are oval to oblong, somewhat blunt-pointed, maximum nine by four and one-half inches, pale, with short stalks; veins widely separated and parallel from midrib to edge. Rich ground. Fruit a thick pod filled with seeds, bearing white down. (Greek for *Æsculapius*.)

Purple Milkweed (*Asclepias purpurascens*). Milkweed family. June, July.

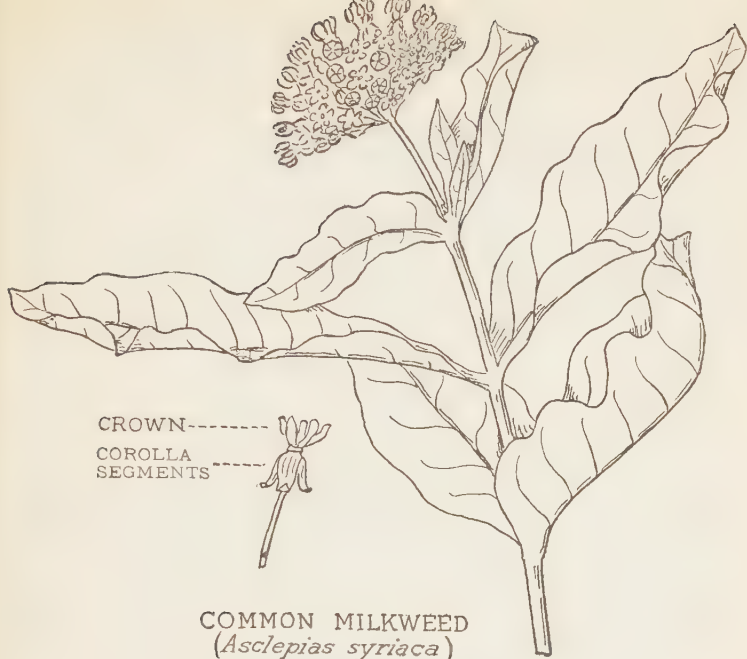
Rarely more than three feet high, stem slender. Flowers similar to those of Common Milkweed but of *deep magenta*. Leaves egg-shaped to oblong, short-stalked, downy beneath, with widely separated veins, maximum eight by three inches. Dry ground.

Swamp Milkweed (*Asclepias incarnata*). Milkweed family. July, August.

Leafy, slender, slightly hairy, if at all; maximum height four feet. Flowers (dull pink) *not over half as large as A. syriaca*, the "crown" one-eighth inch in diameter. Its leaves are more lance-shaped than those of the preceding milkweeds and the *veins tend to net*. Swamps. Hairy Milkweed (*Asclepias incarnata*, var. *pulchra*) resembles Swamp Milkweed, but is *stouter, very hairy, leaves with shorter stalks*, flowers less deeply colored.



"The floating down of a milkweed pod"



PINK AND ROSE-COLORED FLOWERS

Four-leaved Milkweed (*Asclepias quadrifolia*). Milkweed family. May to July.

A rather low milkweed, not over two feet high, with flowers in several small umbels. The flower is that of the milkweeds (see *A. syriaca*), about the size of the Swamp Milkweed flower, that is, very small. The lower stem is quite free from leaves.

Poke Milkweed (*Asclepias phytolaccoides*). Milkweed family. June to August.

A tall milkweed, sometimes six feet high, bearing at the top and in the upper axils drooping umbels of pink or *ivory-white* flowers, each on a long, slender stalk, with less flowers to the umbel than is usual in the milkweeds. The flowers are those common to the family (see *A. syriaca*). The leaves average six inches long, are thin and prone to droop, somewhat oblong, pointed, without teeth, with stalks under an inch long. The stem is smooth, generally unbranched. Found in woods. Not common in eastern New England. The specimen drawn (ivory-white) grew on a bank by the roadside in western Connecticut, at the edge of woods.

Millspaugh says that the young sprouts of the milkweed have been used as a substitute for asparagus, the juice has been applied to wounds, the seeds have been used for pillows, the stalks for making paper, and the root for medicine, though it is not officinal.



FOUR-LEAVED MILKWEED
(*Asclepias quadrifolia*)



POKE MILKWEED
(*Asclepias phytolaccoides*)

PINK AND ROSE-COLORED FLOWERS

Purple Loosestrife (*Lythrum Salicaria*). Loosestrife family. June to September.

A tall perennial, with angled stem several feet high. Flowers (one-half inch or more) in showy spike; generally six purple-magenta petals. Leaves lance-shaped, sometimes in whorls of three. Swamps and banks. Greek for blood.

Large Marsh Pink (*Sabatia dodecandra*). Gentian family. July to September.

An annual or biennial, six inches to two feet high; flowers two inches across; divisions of the corolla broad; calyx with long lobes. Leaves narrow. Near coast. Sea Pink (*Sabatia stellaris*) is similar, but its corolla has five divisions. Square-stemmed *Sabatia* (*Sabatia angularis*) is similar, but with square stem and leaves broader. Sabbati, Italian botanist.

GROUP IV

Leaves whorled.

Marsh Milkwort (*Polygala cruciata*). Milkwort family. July to September.

A low annual with four-angled stem. Little flowers in short spikes, sepals five, two large (wings); petals (united) three, middle keel-shaped; leaves generally in fours, linear to inversely lance-shaped. Found in swamps. Greek for much milk.

Joe Pye Weed. Trumpet Weed (*Eupatorium purpureum*). Composite family. August, September.

A decorative perennial with tall, stout, spotted stem, sometimes over eight feet. The dull pink flower-heads, containing small florets, in large clusters, corollas cylindrical, styles projecting. Leaves three to six in a whorl, oblong-lance-shaped, coarse, toothed. Low ground. Common.

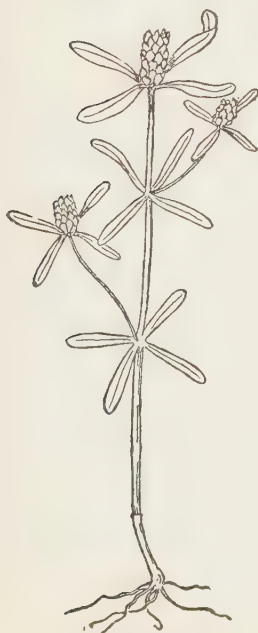
See also PURPLE LOOSESTRIFE above, and FOUR-LEAVED MILKWEED, page 200.



PURPLE LOOSESTRIFE
(*Lythrum Salicaria*)



LARGE MARSH PINK
(*Sabatia dodecandra*)



MARSH MILKWORT
(*Polygala cruciata*)



JOE PYE WEED
(*Eupatorium purpureum*)

PINK AND ROSE-COLORED FLOWERS

Sheep Laurel (*Kalmia angustifolia*). Heath family.

June, July.

A *shrub* under three feet, flowers (under one-half inch) clustered at side of stem, leaves above and below. Corolla saucer-shaped, five-lobed, stamens (ten) sometimes adherent at tip to corolla. The evergreen leaves are generally in threes, pale, somewhat lance-shaped, blunt-pointed. Hillsides.

Swamp Loosestrife (*Decodon verticillatus*). Loosestrife

family. July, August.

A perennial with angled stem; flowers (nearly one inch) in axillary clusters. Calyx of five teeth with smaller between them, five petals, ten stamens; style filiform. Leaves, opposite or whorled, pointed. Bogs. Greek, ten teeth.

GROUP V

Leaves otherwise than opposite or whorled. Plant trailing, creeping, or spreading.

Trailing Arbutus (*Epigæa repens*). Heath family. March to May.

The "Mayflower," with fragrant, small, pink and white, clustered flowers, hidden under the leaves. The bell-shaped corolla has five spreading lobes; the calyx, of five light-green sepals, is enclosed by hairy bracts. Leaves egg-shaped to oblong, on hairy stalks. Sandy and rocky places, particularly under pine trees. Greek signifies upon the earth (trailing).

Cranberry (*Vaccinium macrocarpon*). Heath family.

Early summer.

A creeping plant with long and slender stem. Flower (one-third to one-half inch) pendulous; corolla four-parted, anthers forming a cone. The (evergreen) leaves are oval, blunt, edges rolled back, maximum seven-twelfths inch. Bogs. Small Cranberry (*V. Oxycoccus*) is more delicate, flowers not over one-third inch broad, leaves not over one-third inch.



Trailing Arbutus (*Epigaea repens*)



SWAMP LOOSESTRIFE
(*Decodon verticillatus*)



SHEEP LAUREL
(*Kalmia angustifolia*)



TRAILING ARBUTUS
(*Epigaea repens*)



SMALL CRANBERRY
(*Vaccinium Oxycoccus*)

PINK AND ROSE-COLORED FLOWERS

Wild Morning Glory. Hedge Bindweed (*Convolvulus sepium*). Convolvulus family. June to August.

A climbing plant with bell-shaped flowers, sometimes two inches across, and broadly arrow-shaped leaves. This is Wordsworth's "Cumbrous bindweed with its wreaths and bells."

Climbing Fumitory (*Adlumia fungosa*). Fumitory family.
June to September.

A biennial with delicate stem and foliage, climbing on bushes. Flowers pendulous, clustered; sepals two; corolla closed. Leaves thrice pinnately compound, leaflets lobed. Damp woods. Named for J. Adlum.

See also ARROW-LEAVED TEAR-THUMB, page 152.

GROUP VI

Leaves otherwise than opposite or whorled. Shrub.

Pink Azalea. Pinxter Flower. Wild Honeysuckle (*Rhododendron nudiflorum*). Heath family. May.

A noticeable swamp plant in spring time, sometimes reaching six feet. The flowers are large in umbelled clusters and generally precede the leaves; corolla with tube and five lobes; stamens and styles long. Leaves downy beneath. Swamps. Greek signifies rose tree.

Rhodora (*Rhododendron canadense*). Heath family. May,
June.

A plant not over three feet with large and handsome flowers. The magenta corolla is two-lipped, one lip two- to three-lobed, the other split to the base; the calyx is tiny. The leaves appear after the flowers, are oblong, not toothed. Found in bogs:

"I found the fresh Rhodora in the woods,
Spreading its leafless blooms in a damp nook,
To please the desert and the sluggish brook."—Emerson.



WILD MORNING GLORY
(*Convolvulus sepium*)



CLIMBING FUMITORY
(*Adlumia fungosa*)



RHODORA
(*Rhododendron canadense*)



PINK AZALEA
(*Rhododendron nudiflorum*)

PINK AND ROSE-COLORED FLOWERS

Purple Flowering Raspberry (*Rubus odoratus*). Rose family. June to August.

A straggling plant three to five feet high, with clammy hairs on branches and calyx. The purplish-pink flower (two inches across) has five broad petals, five calyx-lobes with prolonged tips, and many stamens. The long-stemmed leaves are heart-shaped at base, broad, three- to five-lobed, toothed, middle lobe long. The fruit resembles a raspberry, but is hardly edible. Open woods. *Rubus* (*ruber*) means red.

Steeple Bush. Hardhack (*Spiræa tomentosa*). Rose family. June to August.

A plant with maximum height of four feet bears a pyramidal cluster of small, magenta-pink flowers, with five petals and numerous stamens. Stem of woody consistency with woolly surface. Flowers small; calyx five-cleft; five petals. Leaves egg-shaped to oval, toothed. Low ground. *Spiræa* signifies twisted, referring to the fruit of some of the genus.

ROSES

Sweetbrier. Wild Rose (*Rosa rubiginosa*). Rose family. June.

The bush has a maximum height of six feet, its stem is stout and has backward-bending prickles. The flowers are on short stalks, with five broad petals. The leaves have five to seven leaflets, rounded, *doubly toothed*. This is the Eglantine of the poets. Dog Rose (*R. canina*) is similar, but has *singly-toothed* leaflets. Swamp Rose (*R. carolina*) is a bushy plant, maximum height seven feet, with *hooked thorns*, leaflets *five to nine*, sharply toothed, with long stalks. Smooth Rose (*R. blanda*) is practically *thornless*, with maximum height of four feet. Leaflets *five to seven*, with short stalks.



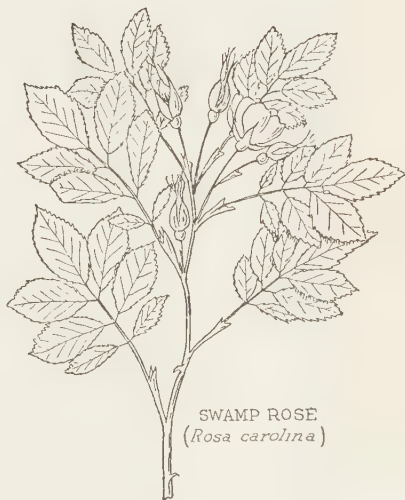
PURPLE FLOWERING RASPBERRY
(*Rubus odoratus*)



HARDHACK
(*Spiraea tomentosa*)



SWEETBRIER
(*Rosa rubiginosa*)



SWAMP ROSE
(*Rosa carolina*)

GROUP VII

Leaves otherwise than opposite or whorled. Herb. Leaves of three leaflets.

Showy Tick Trefoil (*Desmodium canadense*). Pulse family.
July to September.

An upright perennial one foot to several feet high. The flowers are papilionaceous, magenta, one-half inch long, in raceme; the calyx is two-lipped. The leaves are made up of three leaflets, lance-shaped to oblong, blunt, with slender, pointed, persistent stipules. The pods, two to three inches long, have three to five joints, and proceed directly from the calyx. Found in woods and on banks, perhaps more common in the open country than the other Tick Trefoils, which are prone to seek the shelter of the woods. The Greek name signifies a chain, referring to the jointed pod.

Panicled Tick Trefoil (*Desmodium paniculatum*). Pulse family. July to September.

A trefoil with a tall and slender stem and delicate branches leaving it at right angles. The small papilionaceous flowers are in a loose panicle. The leaflets, with tiny and temporary stipules, are very narrowly lance-shaped with blunt points; the pods are rather short-stalked and sometimes have six joints.

Dillen's Tick Trefoil (*Desmodium Dillenii*). Pulse family.
June to September.

An upright plant with hairy stem two to three feet high, with papilionaceous flowers only about one-fourth inch long. The three leaflets are egg-shaped to lance-shaped, pale beneath, two or three inches long, with small stipules; the leaf-stalks are an inch or more long. Pods, rather short-stalked, of two to four joints. Common in open woody places.



SHOWY TICK TREFOIL
(*Desmodium canadense*)



PANICLED TICK TREFOIL
(*Desmodium paniculatum*)



DILLEN'S TICK TREFOIL
(*Desmodium Dillenii*)

PINK AND ROSE-COLORED FLOWERS

Sharp-leaved Tick Trefoil (*Desmodium grandiflorum*).

Pulse family. June to September.

An upright herb with leaves all crowded at the end of the stem, from which arises a long raceme of tiny papilionaceous flowers. The leaflets are broadly egg-shaped, pointed, except perhaps a rounded end one. Pods, long-stalked, with two or three joints, Open woods. Naked-flowered Tick Trefoil (*D. nudiflorum*) is similar, but the raceme is on a long leafless stalk about two feet high. The leaves, crowded at the top of a separate stem, have three leaflets, broadly egg-shaped, whitish beneath. Pods, long-stalked, generally three-jointed. Common in woods.





NAKED-FLOWERED TICK TREFOIL
(*Desmodium nudiflorum*)

PINK AND ROSE-COLORED FLOWERS

Alsatian Clover (*Trifolium hybridum*). Pulse family.
May to October.

The pink clover of the fields, a perennial. The stem rises to a height sometimes of two feet, and is branched. Flowers fragrant, in spherical heads on long stalks, papilionaceous, later bent back. Leaves egg-shaped, fine-toothed.

Rabbit-foot Clover (*Trifolium arvense*). Pulse family.
August, September.

A modest annual, common by the roadside, less than a foot high, the slender stem often branching. The (perfect) flowers are in delicate, oblong, fuzzy, pinkish-gray heads, one-half an inch long; calyx lobes (five) awl-shaped, silky, projecting beyond corolla. Leaves of three leaflets, narrow. Dry fields.

GROUP VIII

Leaves alternate, simple. Herbs. Flowers in either spike, head, or raceme.

Halberd-leaved Tear-thumb (*Polygonum arifolium*).
Buckwheat family. Midsummer.

A perennial with stout stem, sometimes reaching six feet, with backward-bending prickles. Flowers tiny, in close clusters, with rose-colored, four-parted calyx. Leaves broadly halberd-shaped, stalked, sometimes eight inches long. Wet places. The generic name signifies many-jointed.

Milkwort (*Polygala sanguinea*). Milkwort family. June to August.

A modest annual, under a foot high. The tiny flowers are in small heads, spherical to oblong, one-third inch or more thick. The flowers have five unequal sepals (pink), two large ones (wings), and three petals (yellowish, inconspicuous), united. The leaves are linear to oblong. Found in sandy and damp ground. Greek, much milk (favoring lactation).



ALSATIAN CLOVER
(*Trifolium hybridum*)



RABBIT-FOOT CLOVER
(*Trifolium arvense*)



MILKWORT
(*Polygala sanguinea*)



HALBERD-LEAVED TEAR-THUMB
(*Polygonum arifolium*)

PINK AND ROSE-COLORED FLOWERS

Racemed Milkwort (*Polygala polygama*). Milkwort family. Midsummer.

A biennial, about eight inches high. The small flowers are in loose racemes; sepals five, two large (wings); petals three, united, cut at top; eight stamens. The leaves are inversely lance-shaped to oblong, not toothed. Sandy places, near coast.



THREAD-LEAVED SUNDEW
(*Drosera filiformis*)

Fireweed (*Epilobium angustifolium*). Evening Primrose family. Midsummer.

A perennial, two to six feet high. Flowers (three-fourths to one and one-fourth inches) in showy racemes; petals four; stamens eight; stigma four-divided. Leaves resemble willow-leaves. Pod linear. Low ground, especially recently burnt over. (Greek, upon a pod.)

Thread-leaved Sundew (*Drosera filiformis*). Sundew family. June to September.

A slender stem averaging a foot high, bears a one-sided raceme of small flowers; generally five petals, five stamens, and three styles. Leaves (from root only) thread-like, covered with blunt-tipped hairs. In sand on the coast. Southern New England to Delaware. *Drosera* signifies dewy.

Pasture Thistle (*Cirsium pumilum*). Composite family. July to September.

The fragrant thistle, on the nectar of which bees and butterflies feast to intoxication. (See frontispiece.)



FIREWEED
(*Epilobium angustifolium*)



RACEMED MILKWORT
(*Polygala polygama*)

PINK AND ROSE-COLORED FLOWERS

Water Persicaria (*Polygonum amphibium*). Buckwheat family. August, September.

A stout Knotweed growing in water. The minute rose-colored flowers are in close spike. The five divisions of the calyx resemble petals; stamens five; the (two-parted) style projects. Leaves thick, *oblong*, with stalks. Ponds. *Polygonum* means many-jointed.

Pink Knotweed (*Polygonum pennsylvanicum*). Buckwheat family. August, September.

A common, branching Knotweed, enlarged at the joints, sometimes reaching a height of four feet. Flowers small, in dense spikes sometimes over an inch long, the five divisions of the calyx resembling petals. Leaves *lance-shaped*, long-pointed. Moist ground. Lady's Thumb (*P. Persicaria*) is similar but not more than two feet high, with a *dark spot in the middle of the leaf*.

Knotgrass.¹ **Door-weed** (*Polygonum aviculare*). Buckwheat family.

An insignificant annual or perennial straggling weed. The tiny flowers have green calyxes with pinkish, five-lobed borders; no corolla. Leaves somewhat lance-shaped, practically without stalks. Dooryards and waste ground. Common.

“ The lowing herds
Have ta'en their supper off the succulent herb
Of knotgrass, dew-besprint.”

¹ Inserted here rather than separate the members of this family, though the arrangement of its flowers should place it rather in Group IX. See also MOTH MULLEIN (p. 60), of which one variety (*albiflorum*) has pinkish flowers, and PALE CORYDALIS (p. 222), whose clusters are racemose, and should, perhaps, rather have been included in this group.



PINK AND ROSE-COLORED FLOWERS

GROUP IX

Leaves neither opposite nor whorled, simple. Herbs Flowers not in spike, head, or raceme.

Knotgrass is on page 218, with the other Polygonums.

Philadelphia Fleabane (*Erigeron philadelphicus*). Composite family. June to August.

A perennial averaging two feet; flower-heads (one-half to one inch) suggesting small daisies, with narrow pistillate rays. Leaves oblong with broad midrib; upper clasping the stem. Moist ground.

Grass Pink (*Calopogon pulchellus*). Orchis family. June, July.

A delicate and fragrant orchis rising from a solid bulb to the height of a foot. An old writer has said: "At the top grow the flowers, resembling in shape the dead carcase of a Bee." Several (one inch) flowers in a terminal cluster; lip bearded. The single leaf is grass-like, growing at the base. Wet places. Greek name signifying beautiful beard, referring to the lip.



SHOWY ORCHIS
(*Orchis spectabilis*)

Showy Orchis (*Orchis spectabilis*). Orchis family. May.

A low orchis with angled leafless stem. The flowers (one inch) appear two-lipped, the upper lip pink, the lower white, prolonged into a spur; the apparent upper lip is formed of united petals and sepals. The leaves (two) are from the root, long and shiny (with bracts on the stems resembling leaves). Woods.



PHILADELPHIA FLEABANE
(*Erigeron philadelphicus*)



GRASS PINK
(*Calopogon pulchellus*)

BLUE AND PURPLE FLOWERS

Wild Bergamot (*Monarda fistulosa*). Mint family. July, August.

A perennial, two to four feet high, generally with hairy stem, particularly at the joints. The magenta-purple flowers are in a large terminal head. The calyx is hairy inside; the corolla (one inch) is two-lipped, hairy, with stamens protruding. Leaves broadly lance-shaped, upper variegated. Fields and roadsides. Common about Woodstock, Vermont. Named after Nicholas Monardes.

Peppermint (*Mentha piperita*). Mint family. July, August.

A branching perennial, one to three feet high, with flowers in dense interrupted spikes. The flowers (light-purple) are small, the corolla tubular, four-cleft, one lobe broader; stamens four. Leaves oblong to lance-shaped and unevenly toothed, with stalks. An escape. Spearmint (*M. spicata*) is similar, but its spike is continuous, and its leaves without stalks, or with very short ones.

Self-heal (*Prunella vulgaris*). Mint family. June to September.

A low perennial. Little purplish flowers in thick oblong spike or head, perhaps an inch long when flowering, longer in fruit; calyx and corolla two-lipped, upper lip of corolla hooded. The leaves have stalks and are oblong, sometimes toothed. Common everywhere. From the German Braune, a throat disease.

Blue Vervain (*Verbena hastata*). Vervain family. July to September.

An upright perennial with rough stem. The small purple flowers are in slender spikes, few flowers blossoming at once; calyx five-pointed, corolla salver-form with five-cleft border; stamens four, not projecting; bract of flower short. Leaves long-pointed, sharply toothed, lower often lobed. Common in waste places. Latin name signifies sacred herb.



Self-heal (*Prunella vulgaris*)

PINK AND ROSE-COLORED FLOWERS

Twisted-stalk (*Stréptopus roseus*). Lily family. May, June.

A plant averaging a foot or two high, with stout stem and branches beset with short hairs. The flowers are axillary, small, not over a half-inch long, bell-shaped, generally solitary, pendulous, on slender stalks twisted near the middle. The leaves are egg-shaped, pointed, clasping. Found in the woods. The Greek name means twisted foot, referring to the stalk.

Calypso (*Calypso bulbosa*). Orchis family. May, June.

A rare orchis of the northern bogs and damp woods. The flower, on a stem not over seven inches high, has petals and sepals about one-half inch long and a lip somewhat like the Lady's Slipper. The single leaf rises separately from the solid bulb (corm). Named after the goddess.

Pink Lady's Slipper (*Cypripedium acaule*). Orchis family.
May, June.

A beautiful orchis of the open woods, still fairly common though too freely picked. Its average height is about ten inches. The flower is solitary; sepals three, pointed; lip (two inches) a large pendulous pouch. The leaves (two), from the base only, are oval, large, sheathing at the base. The Greek name signifies the shoe of a Venus.

Pale Corydalis (*Corydalis sempérvirens*). Fumitory family. May to June.

A branching early biennial with delicate stem and foliage, maximum height two feet. The flowers (one-half inch) are loosely clustered, pink with yellow tips; two sepals; corolla with rounded spur. The final divisions of the leaflets are round-wedge-shaped. Rocky places. (Old Greek for crested lark.)



Pink Lady's Slipper (*Cypripedium acaule*)



TWISTED-STALK
(*Streptopus roseus*)



CALYPSO
(*Calypso bulbosa*)



PINK LADY'S SLIPPER
(*Cypripedium acaule*)



PALE CORYDALIS
(*Corydalis sempervirens*)

PINK AND ROSE-COLORED FLOWERS

Fringed Polygala (*Polygala paucifolia*). Milkwort family.
Spring, early summer.

A perennial a few inches high, bearing one to three magenta flowers, nearly one inch long. Two of the five sepals are large and petal-like, the others insignificant; three petals, more or less united into a tube, one somewhat pouched, containing the (eight) stamens, and fringed at the top. Lower leaves insignificant; at the top of the stem several larger ones. Open woods.

Snake-mouth. Rose Pogonia (*Pogonia ophioglossoides*).
Orchis family. June, July.

Stem four to twelve inches high. The irregular, fragrant flower is nearly an inch long, pale-rose, with three sepals and three petals, one (the lip) bearded. A parallel-veined leaf near the middle; near the flower a small leaf or bract. Bogs. Greek name signifies bearded.

Arethusa (*Arethusa bulbosa*). Orchis family. May, June.

An early orchis averaging nine inches, with sheathing bracts, rising from a bulb. The "magenta-crimson" flower has a bearded lip, lance-leaved petals and sepals. A single linear leaf appears later at the base. Bogs. Named for the nymph who was changed into a fountain.

"Arethusa arose
From her couch of snows
In the Acroceraunian mountains."—*Shelley*.

Swamp Rose Mallow (*Hibiscus Moscheutos*). Mallow
family. July, August.

A perennial, six feet or over, with stout stem and flowers averaging five or six inches broad; five-lobed calyx and five petals. Leaves pointed, toothed, the lower lobed, the upper lance-shaped to oblong. In marshes near coast and waste places on shores.

See also YARROW (page 130), sometimes pink.



RINGED POLYGALA
(*Polygala paucifolia*)



SNAKE-MOUTH
(*Pogonia ophioglossoides*)



ARETHUSA
(*Arethusa bulbosa*)



SWAMP ROSE MALLOW
(*Hibiscus Moscheutos*)

BLUE AND PURPLE FLOWERS
(INCLUDING VIOLET AND LILAC)

CHART OF BLUE AND PURPLE FLOWERS

Directions.—First note whether plant falls in Class I, II, III, IV, or V. Then follow out to right till a group-number is reached, then turn to page indicated and look through the group. If flower is not found, try pink

Class I.—Plants with leaves mostly opposite¹ { Stem four-sided = Group I, p. 230
Stem not four-sided = Group II, p. 238

Class II.—Plants with leaves from root only = Group III, p. 248

Class III.—Plants with no leaves = Group IV, p. 254

Class IV.—Plant with leaves circling stem under water = Group V, p. 254

Class V.—Plants with alternate leaves { Flowers bell- or trumpet-shaped, or with five petals²
or five-lobed corolla² = Group VI, p. 256
Flowers papilionaceous³ = Group VII, p. 264
Flowers composite⁴ = Group VIII, p. 270
Flowers otherwise than above = Group IX, p. 280

¹ In pairs opposite each other *on the stem*, not at the root.

² The part generally giving the flower its distinctive color.

³ Resembling the pea blossom, with standard, wings, and keel.

⁴ The apparently simple flower made up of numerous florets, borne in an "involucre" of green bracts, as the Daisy, the Aster or the Golden-rod.

BLUE AND PURPLE FLOWERS

(INCLUDING VIOLET AND LILAC)

GROUP I

Leaves mostly opposite. Stem four-sided.

Wild Mint (*Mentha arvensis*, var. *canadensis*). Mint family. July to September.

Low perennial with hairy stem, light-purple corolla four-cleft; stamens four; style prominent. Wet places. **Gill-over-the-Ground** (*Nepeta hederacea*). Mint family. Perennial. Pale-blue, two-lipped corolla; four stamens, two longer. Leaves rounded. Damp places. **Common Dittany** (*Cunila origanoides*). Mint family. Perennial, averaging a foot. Light-purple; corolla two-lipped; stamens two, projecting; leaves egg-shaped, toothed. Dry hills.



GILL-OVER-THE-GROUND
(*Nepeta hederacea*)



COMMON DITTANY
(*Cunila origanoides*)



WILD MINT

(*Mentha arvensis*, var. *canadensis*)

BLUE AND PURPLE FLOWERS

Catnip (*Népetà Catària*). Mint family. July to September.

An upstanding perennial, two or three feet high, with downy, branching stem. The small flowers form compact interrupted spikes, or elongated clusters, at the ends of the branches. The two-lipped corollas are whitish, spotted with very light purple or pink. The leaves are somewhat heart-shaped, stalked, and have coarse, rounded teeth. Damp places, generally near farm buildings.

Wild Marjoram (*Oríganum vulgare*). Mint family. June to October.

An upright perennial whose hairy stem has a maximum height of two and one-half feet. The purplish flowers are two-lipped, in spike (or cluster) with purplish bracts. The leaves are round-egg-shaped, with stalks. Roadsides. The Greek signifies mountain ornament.

Motherwort (*Leonurus Cardíaca*). Mint family. June to August.

A perennial with stout, erect stem, maximum height five feet. The flowers are small, whorled in axils; the light-purple corolla has a short tube and two lips, the upper bearded. The lower leaves have irregular lobes and long stalks, the upper are wedge-shaped at the base and have three pointed lobes. An old-fashioned herb found in waste places near buildings. The Greek signifies lion's tail.

Pennyroyal (*Hedeòma pulegiòides*). Mint family. July to September.

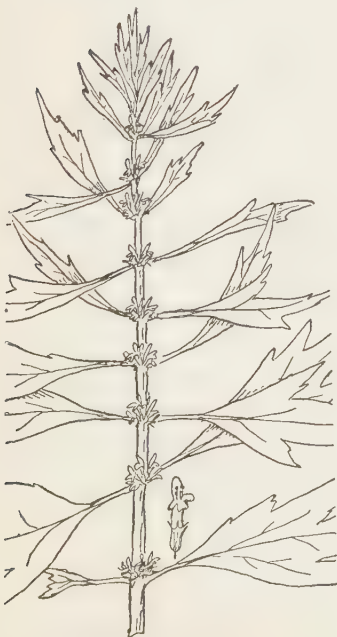
An odorous annual with slender stem, rarely over a foot high, generally branching and finely hairy. The flowers, whorled in the axils, are small, light-purple, with calyx and corolla two-lipped. The leaves are egg-shaped to oblong, with stalks, somewhat toothed. Dry ground. The Greek signifies sweet scent.



CATNIP
(*Nepeta Cataria*)



PENNYROYAL
(*Hedeoma pulegioides*)



MOTHERWORT
(*Leonurus Cardiaca*)



WILD MARJORAM
(*Origanum vulgare*)

BLUE AND PURPLE FLOWERS

Wild Bergamot (*Monarda fistulosa*). Mint family. July, August.

A perennial, two to four feet high, generally with hairy stem, particularly at the joints. The magenta-purple flowers are in a large terminal head. The calyx is hairy inside; the corolla (one inch) is two-lipped, hairy, with stamens protruding. Leaves broadly lance-shaped, upper variegated. Fields and roadsides. Common about Woodstock, Vermont. Named after Nicholas Monardes.

Peppermint (*Mentha piperita*). Mint family. July, August.

A branching perennial, one to three feet high, with flowers in dense interrupted spikes. The flowers (light-purple) are small, the corolla tubular, four-cleft, one lobe broader; stamens four. Leaves oblong to lance-shaped and unevenly toothed, with stalks. An escape. Spearmint (*M. spicata*) is similar, but its spike is continuous, and its leaves without stalks, or with very short ones.

Self-heal (*Prunella vulgaris*). Mint family. June to September.

A low perennial. Little purplish flowers in thick oblong spike or head, perhaps an inch long when flowering, longer in fruit; calyx and corolla two-lipped, upper lip of corolla hooded. The leaves have stalks and are oblong, sometimes toothed. Common everywhere. From the German Braune, a throat disease.

Blue Vervain (*Verbena hastata*). Vervain family. July to September.

An upright perennial with rough stem. The small purple flowers are in slender spikes, few flowers blossoming at once; calyx five-pointed, corolla salver-form with five-cleft border; stamens four, not projecting; bract of flower short. Leaves long-pointed, sharply toothed, lower often lobed. Common in waste places. Latin name signifies sacred herb.



Self-heal (*Prunella vulgaris*)



WILD BERGAMOT
(*Monarda fistulosa*)



PEPPERMINT
(*Mentha piperita*)



SELF-HEAL
(*Prunella vulgaris*)



BLUE VERVAIN
(*Verbena hastata*)

BLUE AND PURPLE FLOWERS

Blue Curls (*Trichostema dichotomum*). Mint family.

July to September.

An annual, six inches to a foot and a half high. The small blue flowers appear on long stalks, first at the end, then in the axils of the leaves. The corolla has five lobes, one narrow and long. The characteristic feature is the protrusion of the four long and curving stamens. Leaves lance-shaped, short-stalked. Sandy places. Greek signifies hairy stamens.

Skullcap (*Scutellaria galericulata*). Mint family. June to

August.

An upright perennial, one to three feet high, with downy stem. The flowers (three-fourths inch) are solitary in the axils; the blue corolla is two-lipped, as is the calyx, which in addition has a spur. Leaves broadly lance-shaped, almost heart-shaped at the base, toothed. Wet ground. Hyssop Skullcap (*S. integrifolia*) has flowers an inch long, racemed along the stem. Dry ground. Rhode Island, West and South. *Scutella*, a dish, refers to the fruit.

Mad-dog Skullcap (*Scutellaria lateriflora*). Mint family.

July to September.

An upright perennial, one to two feet high. The light-purple flowers (one-third inch) are in raceme; calyx with a cap, becoming later the queerly shaped seed-vessel. Leaves somewhat egg-shaped but long-pointed, coarsely toothed, with long stalks. Wet places. Common.

Monkey Flower (*Mimulus ringens*). Figwort family.

June to September.

An upright perennial, with grooved stem, maximum height two feet. Flowers (one inch) solitary in axils, on long stalks; corolla violet, two-lipped, upper lip with two, lower with three broad lobes; stamens four, in two pairs. Leaves lance-shaped, pointed, clasping, toothed. Wet places. From *mimulus*, a little buffoon.



BLUE CURLS
(*Trichostema dichotomum*)



SKULLCAP
(*Scutellaria galericulata*)



MAD-DOG SKULLCAP
(*Scutellaria lateriflora*)



MONKEY FLOWER
(*Mimulus ringens*)

BLUE AND PURPLE FLOWERS

GROUP II

Leaves mostly opposite. Stem not four-sided.

Blue Phlox (*Phlox divaricata*). Polemonium family. May, June.

A perennial, averaging one foot. Flowers "pale lilac or bluish" (Gray), in open cluster; edge of corolla five-parted; stamens five. Leaves, oblong to lance-shaped, pointed, without stalks. Damp woods. West Quebec, West and South.

Wild Geranium. Wild Cranesbill (*Geranium maculatum*).
Geranium family. April to July.

An upright perennial with hairy stem, one to two feet high. The branching flower-stalk bears from one to three flowers, each an inch or more across, with five light magenta-purple rounded petals; ten stamens. The bud is hairy. The leaf is cleft into five lobes whose edges are deeply toothed and cut. Common in open places and woods. Greek name for crane.

Myrtle. Periwinkle (*Vinca minor*). Dogbane family.
February to May.

A creeping perennial with solitary (one-fourth to one and one-fourth inches) flowers. The bell-shaped corolla has five lobes; stamens five. The leaves are shiny, more or less egg-shaped, pointed, short-stalked. Woods and roadsides. An escape. This specimen was found in deep woods at the head of Willoughby Lake, northern Vermont.

Corn Cockle (*Agrostemma Githàgo*). Pink family. July to September.

Annual or biennial, under three feet, with long, soft hairs. Flowers (one to one and one-half inches), solitary, long-stalked, with five magenta-purple petals; stamens ten. The hairy calyx is inflated and has five long, narrow teeth. Wheat fields, etc. Greek signifies crown of the field.



BLUE PHLOX
(*Phlox divaricata*)



MYRTLE
(*Vinca minor*)



CORN COCKLE
(*Agrostemma Githago*)



WILD GERANIUM
(*Geranium maculatum*)

BLUE AND PURPLE FLOWERS

One-flowered Gentian (*Gentiana Porphyrio*). Gentian family. August to October.

An upright perennial, six inches to a foot or over, bearing a large, solitary, terminal flower, with light-blue, bell-shaped corolla of five pointed lobes, stamens five. The leaves are linear. Pine barrens. New Jersey and South. The genus was named from Gentius, King of Illyria, who, according to Pliny, discovered the plant, *i.e.*, its medicinal virtue (Gray).

Five-flowered Gentian (*Gentiana quinquefolia*). Gentian family. August to October.

An upright annual averaging one and one-half feet, with about five flowers at the top. Flowers (about one inch) light-blue; corolla with five pointed lobes; stamens five. Leaves egg-shaped, pointed, with clasping bases. High ground, more common in the West. The specimen sketched grew by the Cripple Creek Railway, near Summit, Colorado.

Closed Gentian (*Gentiana Andrewsii*). Gentian family. August to October.

An upright perennial, averaging a foot or two high, with large flowers varying from blue to dark-purple, in clusters at the top and in the axils; corolla closed. The leaves are lance-shaped, pointed, without stalks. Moist ground. Fairly common in the East. Neither of the Wild Gentians found in America furnish the drug used for a tonic. This comes from the *Gentiana lutea*, a European plant.



FIVE-FLOWERED GENTIAN
(*Gentiana quinquefolia*)



ONE-FLOWERED GENTIAN
(*Gentiana Porphyrio*)



CLOSED GENTIAN
(*Gentiana Andrewsii*)

BLUE AND PURPLE FLOWERS

Fringed Gentian (*Gentiana crinita*). Gentian family.
September, October.

An annual with erect branches, a foot or two in height, sometimes taller. The flowers are an inch or two long, solitary, terminal, the calyx four-pointed, the corolla with four broad lobes ending in a fringe, stamens four. The color "varies from pale to deep violet-blue, but with occasionally a ruddy tinge, but with never a suspicion of true blue, though lines of a deeper blue-violet appear on the outer surface of the corolla" (Mathews). The leaves are numerous, lance-shaped, from rounded bases, without stalks. Low grounds. This beautiful blossom appears in considerable profusion about Poland Spring in September.

Beard-tongue (*Pentstemon hirsutus*). Figwort family.
May to July

An upright perennial with viscid-hairy stem, not over two feet high. Flowers (nearly an inch long) loosely clustered on stalks from axils; corolla light-purple with two whitish lips, long cylindrical, throat bearded, four fertile stamens and one sterile. Leaves lance-shaped (two to four inches), lowest egg-shaped or oblong, usually finely toothed, upper without stalks. Dry ground. Common southward. The Greek name signifies five stamens.

Heart-leaved Twayblade (*Listera cordata*). Orchis family.
Early summer.

A delicate orchid, a few inches high. The minute purple flowers are in raceme; three sepals, three petals, all more or less alike; the lip, which is longer than the others, is forked like a swallow's tail. Named after Martin Lister.



FRINGED GENTIAN
(*Gentiana crinita*)



BEARD-TONGUE
(*Pentstemon hirsutus*)



HEART-LEAVED TWAYBLADE
(*Listera cordata*)

BLUE AND PURPLE FLOWERS

Thyme-leaved Speedwell (*Veronica serpyllifolia*). Figwort family. May to August.

A branching perennial, a few inches to eight inches high, rising from a prostrate, branching base. The little flowers, pale blue with darker stripes, are in terminal racemes. The corolla, like that of the other veronicas, has a short tube ending in four more or less irregular lobes. The two stamens are inserted in the tube of the corolla, and project beyond it (exserted). The oblong to egg-shaped leaves are wavy-toothed, the lowest with stalks and rounded. Common in the grass of moist roadsides and fields.

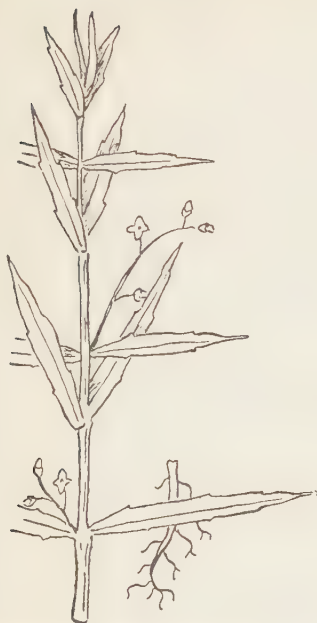
Marsh Speedwell (*Veronica scutellata*). Figwort family. May to September.

A delicate, sometimes reclining perennial, with small light-blue flowers, few in raceme, on thread-like stalks, from the axils; corolla with four lobes; stamens two. The leaves are long and slender, very sparingly toothed, clasping. Wet places.

Common Speedwell (*Veronica officinalis*). Figwort family. May to August.

A perennial with hairy stem lying on the ground, but erect at the end, less than a foot in length. The small light-blue flowers are in long racemes rising from the axils of the leaves; corolla four-lobed; stamens two. The leaves are short-stalked, oblong to inversely egg-shaped, obtuse, toothed. Hills and woods.

It has been suggested that the generic name was from a fancied resemblance to the face of Jesus, imprinted on the handkerchief with which St. Veronica wiped off the sweat and blood on his way to be crucified.



MARSH SPEEDWELL
(*Veronica scutellata*)



THYME-LEAVED SPEEDWELL
(*Veronica serpyllifolia*)



COMMON SPEEDWELL
(*Veronica officinalis*)

BLUE AND PURPLE FLOWERS

Brooklime (*Veronica americana*). Figwort family.

June to September.

A perennial with hollow stem, one to three feet long, prostrate, ascending at the end (decumbent). The small light-blue, purple-striped flowers are in racemes from the axils; stamens two, projecting and spreading. Leaves mostly with stalks, oblong to egg-shaped, generally toothed, pointed, about three inches long. Common in ditches. Water Speedwell (*Veronica anagallis-aquatica*) is similar but has leaves without stalks.

Purple Virgin's Bower (*Clematis verticillaris*). Crowfoot

family. May, June.

A vine, bearing flowers solitary in axils, two or three inches across, with four purple sepals, resembling petals. Leaves of three leaflets with slender stalks. Rocky places, not common in New England. The fruit has the effect of a plume, each of its long tails bearing stiff hairs. The generic name was given by Dioscorides, the Greek physician-botanist, to a delicate, climbing plant. The broad outer stamens suggest petals.

Bluets. Quaker Ladies (*Houstonia carulea*). Madder

family. April to July.

A familiar perennial with stems a few inches high, from slender root-stalks. The flowers are small (one-half inch), white or pale-lilac with yellow centres, solitary at the end of the stems. The calyx is four-lobed; the corolla has a short tube ending in four divisions; stamens four, stigmas two. Leaves small, spoon-shaped to oblong. Grassy places. Named in honor of William Houston.

See also BLUE PIMPERNEL, in Red section, p. 288.



BROOKLIME
(*Veronica americana*)



BLUETS
(*Houstonia coerulea*)



PURPLE VIRGIN'S BOWER
(*Clematis verticillaris*)

BLUE AND PURPLE FLOWERS

GROUP III

Leaves mostly from root only.

Larger Blue Flag. Fleur-de-lis (*Iris versicolor*). Iris family. May to July.

A perennial with stout stem from a thickened rootstalk, maximum height three feet. The flowers are large, terminal, conspicuous, with three divisions of the perianth (assemblage of petals and sepals) curved back. Inside the three stamens are three blue, leaf-like appendages which represent the stigmas. The leaves are long and narrow, ascending. Low ground. Greek, rainbow.

Hepatica. Liverwort (*Hepatica triloba*). Crowfoot family. March to May.

A low plant with light-blue or purple (one-half to three-fourths inch) flowers, with numerous petal-like sepals and numerous stamens, appearing before the leaves, on long, hairy, leafless stalks. There are three broad, hairy bracts below the flower. The leaves are liver-shaped (whence the name), thick, broad, long-stemmed, with three rounded lobes; the roots are fibrous. Woods. The tough leaves of the hepatica withstand the cold of winter, and the flower is one of the earliest to bloom. These are the blossoms described by Lowell (Biglow Papers) as "Half-vent'rin' liverworts in furry coats."

Blue-eyed Grass (*Sisyrinchium angustifolium*). Iris family. May to August.

A delicate perennial, under a foot high, with grass-like, flat stem, terminated by two pointed bracts of unequal length, between which rise the flower-stalks (one to four) about as long as the shorter bract. The three petals and three sepals are alike, nearly one-half inch long, violet, yellow at the base; each with an awl-shaped point. The three stamens are united around the pistil, which has a three-divided style. Fields and open woods.



HEPATICA
(*Hepatica triloba*)



BLUE-EYED GRASS
(*Sisyrinchium angustifolium*)



LARGER BLUE FLAG
(*Iris versicolor*)

BLUE AND PURPLE FLOWERS

Shooting Star (*Dodecàtheon Meàdia*). Primrose family.
April, May.

A perennial herb with maximum height of twenty inches. The stem (scape) rises from a cluster of leaves at the base, and bears at the top several flowers (three-fourths to one and one-fourth inches long) in an umbel-like cluster, each flower having a long stalk. The corolla has five long lobes, bent backward; the stamens form a cone. The leaves are somewhat lance-shaped and blunt-pointed. Woods. Pennsylvania, West and South. The Greek name signifies twelve gods, supposed to protect the plant originally so named.

Sea Lavender. Marsh Rosemary (*Limonium carolinianum*).
Leadwort family. July to October.

A perennial of the marshes having a freely branching, leafless stem, with average height of about a foot and a half, bearing tiny, bracted, lavender flowers, paniced or scattered; petals five, clawed; calyx tubular, five-lobed. Leaves clustered at the base, thick, oblong, with stalks. Common on salt marshes. Ancient name of wild beet (Britton and Brown), presumably from a meadow (Gray).

Pickerel-weed (*Pontederia cordata*). Pickerel-weed
family. June to October.

A perennial with stout stem (one and one-half feet) rising from the water. Flowers light-blue, in thick spike; perianth (assemblage of petals and sepals) funnel-formed, two-lipped, each lip three-lobed, the three lower lobes separating, the upper with two yellow spots. The leaves, one from the stem, average six by four inches, heart-shaped to arrow-shaped, generally blunt; those from the root with sheathing stalks. Common in shallow water. Generic name given in honor of Pontedera of Padua.



SHOOTING STAR
(*Dodecatheon Meadia*)



SEA LAVENDER
(*Limonium carolinianum*)



PICKEREL-WEED
(*Pontederia cordata*)

BLUE AND PURPLE FLOWERS

Water Lobelia (*Lobelia Dortmanna*). Lobelia family.
July to September.

A perennial with linear leaves in water, its leafless stem hollow, about a foot in height, bearing a short, open raceme of small (one-half to two-thirds inch) light-blue flowers. The calyx is five-pointed, the corolla with straight tube, two-lipped, upper lip with two, lower with three lobes. Ponds. Generic name after Matthias de l'Obel, of Flanders.

Meadow Violet. Blue Violet (*Viola cucullata*). Violet family. April to June.

A common violet having heart-shaped leaves, with wavy edges. The *smooth*, slender stalks bear each a single flower, violet-blue, with five pointed sepals and five unequal petals, the lateral bearded. The centre is white and fuzzy with the beard of the lateral petals, which conceal the orange-colored stamens. The white centre of the lower petal is delicately veined with purple. The spur is straight and rounded at the end. The flower-stalks are longer than the leaves. Roadsides and meadows with a preference for *wet ground*.

Viola fimbriatula, on higher ground, is of similar growth, but with *fuzzy* leaves, leaf-stalks, and flower-stalks, its leaf rather egg- than heart-shaped, its root-stalk stout, vertical. Bird-foot Violet (*Viola pedata*) has *leaves three- to five-divided or parted*, all divisions linear or nearly so, sometimes notched at apex. Flowers single, large (one inch broad) with centre noticeably orange-colored from the ends of the stamens. *Dry ground*. Arrow-leaved Violet (*V. sagittata*) is a small plant with small violet flowers, the flower-stalks as long as, or longer than, the arrow-shaped leaves. *Damp ground*.



WATER LOBELIA
(*Lobelia Dortmanna*)



MEADOW VIOLET
(*Viola cucullata*)



BIRD-FOOT VIOLET
(*Viola Pedata*)



ARROW-LEAVED VIOLET
(*Viola sagittata*)

BLUE AND PURPLE FLOWERS

GROUP IV

Plants without leaves.

One-flowered Cancer-root (*Orobanche uniflora*). Broom-rape family. April to July.

A little parasite whose underground, scale-bearing stem sends up one to three slender hairy branches, a few inches high, each bearing one flower; calyx generally five-parted, whitish to violet-colored; corolla (one inch) with long tube, and five-lobed border. Damp woods. The Greek name signifies vetch and strangler, referring, doubtless, to its parasitic qualities.

Coral-root (*Corallorrhiza maculata*). Orchis family. July to September.

A purplish stem, six to eighteen inches high, springs from a root suggestive of white coral. The stem has scales but no leaves, and bears at the top a raceme of six to twenty (one-half to three-fourths inch) purplish flowers with three lance-shaped sepals, two similar petals and a broader, three-lobed, purple-spotted lip, the lateral lobes small, the middle broad with crinkly edge. The oblong drooping fruit is more noticeable than the flower. The plant is a parasite on the roots of other plants. Woods. The Greek name signifies coral-root.

GROUP V

Plant with leaves whorled about the stem under water.

Purple Bladderwort (*Utricularia purpurea*). Bladderwort family. May to September.

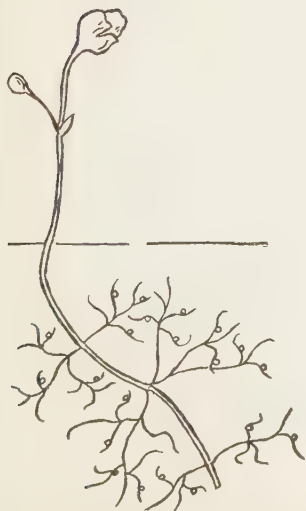
A short delicate stem rises from the water and bears at its summit a small irregular flower with two-lobed calyx and two-lipped corolla, upper lip erect, lower with spur and three lobes. The leaves, on which appear many small bladders, are finely dissected. Found in still water. The Greek name signifies a little bladder.



ONE FLOWERED CANCER ROOT
(*Orobanche uniflora*)



CORAL-ROOT
(*Corallorrhiza maculata*)



PURPLE BLADDERWORT
(*Utricularia purpurea*)

BLUE AND PURPLE FLOWERS

GROUP VI

Leaves alternate. Flowers with bell- or trumpet-shaped corolla, and flowers with five petals, or five-lobed corolla.

Bluebells. Virginian Cowslip. Tree Lungwort (*Mertensia virginica*). Borage family. March to May.

A perennial with stoutish stem a foot or two high, named for the German botanist Mertens. The flowers are blue, or blue-purple, about an inch long, in loose clusters (curled-up racemes) at end of stem (and in upper axils); calyx five-parted; corolla (one inch) trumpet-shaped. The leaves are obtusely pointed, untoothed; those at root with stalks. This plant is found in meadows from Ontario south and west. It blooms in masses along the Brandywine in May. Another name is *Pulmonaria virginica*. The name Virginian Cowslip is given it in England, whereas the true English Cowslip (*Primula veris*) has an umbel of perhaps a dozen small yellow flowers, with crimson spots, at the top of a stem which rises from a cluster of root-leaves. It was of the *Primula*, not the *Mertensia*, that Milton wrote ". . . with cowslips wan that hang the pensive head."

European Bell-flower (*Campanula rapunculoïdes*) (from diminutive of *campana*, a bell). Bluebell family.
July to September.

An upright perennial with average height of about two feet; flower (one to one and one-half inches long) bell-shaped, pendulous, corolla one inch long. The upper leaves are egg-lance-shaped, the lower long-stalked, heart-shaped at base. There is some confusion of the terms bluebell and harebell. According to Grindon and to Nuttall the *Campanula rotundifolia* is the bluebell of Scotland. The *Campanula rotundifolia* (page 258) is our harebell, while the harebell of Shakespeare ("Cymbeline") was perhaps the Wild Hyacinth, referred to in the line:

"The azured harebell, like thy veins."



BLUEBELLS
(*Mertensia virginica*)



EUROPEAN BELL-FLOWER
(*Campanula rapunculoides*)

BLUE AND PURPLE FLOWERS

Harebell (*Campanula rotundifolia*). Bluebell family.

June to September.

A perennial with slender stem rarely reaching a foot. The flowers are blue, bell-shaped, generally few, pendulous, on delicate stalks; calyx and corolla five-pointed. The lower leaves (apt to disappear by blooming time) are rounded, mostly toothed, long-stalked; the stem-leaves linear, without teeth. Shady banks. Its delicacy makes this a favorite plant with the poets; thus:

“ The harebell nodding in the gorge of falls.”

—Emerson.

“ Paved with daisies and delicate bells

As fair as the fabulous asphodels.”

—Shelley.

On the other side it seems to be called Hairbell as well as Bluebell of Scotland. But our spelling is used, at least in some editions, in the “ Lady of the Lake ”:

“ E'en the slight harebell raised its head

Elastic from her airy tread.”

Jacob's Ladder (*Polemonium Van-Bruntia*). Polemonium family. May to July.

A perennial with maximum height of three feet from a horizontal root-stalk; flowers (three-fourths inch broad) clustered, terminal; corolla (blue-purple) bell-shaped, five-lobed; stamens protruding. The leaves are pinnately compound, leaflets egg-shaped, without stalks, nine to twenty-one below, three to five above. Swampy ground. New York and South. The origin of the generic name is obscure, from the Greek meaning war, for reason unknown.



HAREBELL
(*Campanula rotundifolia*)



JACOB'S LADDER
(*Polemonium Van-Bruntiae*)

BLUE AND PURPLE FLOWERS

Marsh Cinquefoil. Purple Marshlocks (*Potentilla palústris*). Rose family. June to August.

A perennial, six to eighteen inches high, its ruddy stem hairy above. Flowers loosely clustered; petals (five) small, egg- to lance-shaped; calyx with five pointed magenta-purple lobes, alternating with five bracts. Leaflets five to seven, oblong, sharp-toothed. Wet places.

Purple Avens (*Geum rivale*). Rose family. May to July.

A hairy perennial, two feet high. Brown-purple flowers nearly an inch broad; upright petals narrowing to a claw; calyx-lobes pointed; style jointed, fruit hairy. Upper leaves three-cleft, lower lyre-shaped. Wet places.



PURPLE AVENS
(*Geum rivale*)



MARSH CINQUEFOIL
(*Potentilla palustris*)

BLUE AND PURPLE FLOWERS

Live-forever (*Sedum purpureum*). Orpine family. June to September.

A perennial with cool, clammy, fleshy leaves, height about two feet. It does not bloom freely, but when it does the cluster of purple (one-fourth inch) flowers is quite showy; sepals five, petals five, stamens ten. The leaves are grayish-green, oval, round-pointed, regularly toothed, made into " purses " by the children. Roadsides, especially in damp places. From *sedere*, to sit.

Nightshade. Bittersweet (*Solanum Dulcamàra*). Nightshade family. May to September.

A climbing perennial. The flowers (one-half inch broad) are purple with yellow centre, in clusters; the corolla five-cleft, with two spots at the base of each lobe; stamens (five) prominent. The upper leaves have two ears at the base. Not to be confounded with " Deadly Nightshade " (*Atropa belladonna*). Moist banks.

This was the Bitter Sweet of early times. Gerarde also describes a variety with white flowers and adds: " Dioscorides doth ascribe unto *Cyclaminius altera*, or bitter sweet with white floures as I conceive it, the like faculties " [cure of bruises and jaundice].

Viper's Bugloss. Blue-weed (*Echium vulgare*). Borage family. June, July.

A biennial herb with hairy stem, maximum height three feet. The showy blue flowers are in close spikes which uncurl as the blossoms appear (scorpioid). The corolla (about three-fourths inch long) has a funnel-formed tube, and unequally five-lobed border; stamens (five) red, protruding. Stem-leaves pointed, without teeth, lance-shaped, without stalks. Roadsides and waste places. Not common in eastern Massachusetts, but the specimen sketched grew in a vacant lot only a few miles from Boston. (From Greek for viper.)



LIVE-FOREVER
(*Sedum purpureum*)



NIGHTSHADE
(*Solanum Dulcamara*)



VIPER'S BUGLOSS
(*Echium vulgare*)

BLUE AND PURPLE FLOWERS

Forget-me-not. Marsh Scorpion-grass (*Myosotis scorpioides*).
Borage family. May to July.

A perennial with stem six inches to one and one-half feet long, at first prostrate, then rising (decumbent). The flowers are in curled-up raceme; corolla one-fourth to one-third inch broad, salver-form, five-lobed, with appendages in the throat; stamens five, the style thread-like. Calyx not as long as the corolla-tube. Leaves, without stalks, blunt-pointed, somewhat oblong. Wet ground. Smaller Forget-me-not (*M. laxa*) is similar, with hairy stem, flowers one-sixth inch broad. *Calyx as long as the corolla-tube.* (Greek for mouse-ear.)

Venus' Looking-glass (*Specularia perfoliata*). Bluebell family. May to September.

An annual with delicate hairy stem with maximum height of two feet. Flowers magenta-purple, without stalks, in axils; calyx and corolla five-pointed. The leaves are rounded, clasping. Woods and banks. (Latin *speculum*, mirror.)

GROUP VII

Leaves alternate. Flowers papilionaceous (resembling pea-blossom).

Beach Pea (*Lathyrus maritimus*). Pulse family. May to August.

A low spreading plant with stout, grooved stem. The flower-stalks bear six to ten flowers (three-fourths inch), purple. Leaflets six to ten, thick, oval; stipules broad. Seashore.

Marsh Vetchling (*Lathyrus palustris*). Pulse family. June to August.

A spreading perennial whose delicate stem, often winged, has a maximum length of three feet. The flower-stalks bear *two to six flowers*, purple, one-half inch long, followed by pods. Leaflets four to eight, narrow. Moist places.



FORGET-ME NOT
(*Myosotis scorpioides*)



VENUS' LOOKING GLASS
(*Specularia perfoliata*)



BEACH PEA
(*Lathyrus maritimus*)



MARSH VETCHLING
(*Lathyrus palustris*)

BLUE AND PURPLE FLOWERS

Blue Vetch (*Vicia Cracca*). Pulse family.

June to August

A spreading perennial with finely hairy stem two to four feet long, climbing by tendrils. The flowers in long, many-flowered, *spike-like racemes*, rise from the axils. Leaflets eighteen to twenty-four, narrowly oblong, with sharp points (mucrons). This vetch is common on the border of thickets, and by the roadside.

Vetch (*Vicia sativa*). Pulse family. July, August.

An annual, climbing by tendrils. Flowers "purplish or pinkish" (Dana), "light violet, the upper petal lined with deeper violet" (Mathews), mostly *two in axils*, generally without stalks, large. Leaflets ten to fourteen, inversely egg-shaped to linear, notched, stipules narrow. Fields.

It is easy to confuse *Vicia Cracca*, *Vicia sativa*, and *Lathyrus palustris*. *Vicia Cracca* has more leaflets than either of the others, sometimes more than both together; moreover, its flowers are numerous and in long racemes. Of the other two plants, *Vicia sativa* has ten leaflets or over and generally only two flowers together, while *Lathyrus palustris* has less than ten leaflets but generally more than two flowers together. Moreover, the flowers of *Lathyrus palustris* have stalks, while those of *Vicia sativa* generally have none.



BLUE VETCH
(*Vicia cracca*)



VETCH
(*Vicia sativa*)

BLUE AND PURPLE FLOWERS

Slender Bush-clover (*Lespedeza virginica*). Pulse family.
August, September.

A slender herb, averaging two feet, with stem unbranched or with few upright branches. The tiny purplish flowers are in close clusters in the axils. Leaves compound, with three leaflets, narrowly oblong (one-half to one and one-half inches) with delicate stalks. Dry ground. Named for Governor Lespedez, of Florida.

Hog Peanut (*Amphicarpa monoïca*). Pulse family.
August, September.

A delicate vine which twines about other plants. Flowers tiny, "magenta-lilac," in short racemes, pod about an inch long. The leaves have three thin leaflets. Rich woods. Common. (Greek signifying *both fruits*, one, under ground, being fleshy.)

Alfalfa. Lucerne (*Medicàgo sativa*). Pulse family. June
to August.

An upright perennial, a foot or more high, bearing purple flowers, half an inch long, in short racemes. The three leaflets are toothed toward the outer end, where they are broader; the leaflets are on separate stalks, the stalk of the middle one being bent. Alfalfa has been known in Europe since the time of Christ, introduced from Media, whence the name.

Wild Lupine (*Lupinus perennis*). Pulse family. May,
June.

An upright perennial, a foot or two high, with rather stout stem and blue flowers in long raceme at the end; a decorative plant of the roadside and field, not infrequently growing in clumps. The flowers are a half-inch or more long, with ten stamens united in a tube (monadelphous). The leaves have seven to eleven inversely lance-shaped leaflets. Sandy ground. Named from *lupus*, wolf, because thought to devour the fertility of soil (Gray).

Wild Lupine (*Lupinus perennis*)





SLENDER BUSH-CLOVER
(*Lespedeza virginica*)



HOG PEANUT
(*Amphicarpa monoica*)



ALFALFA
(*Medicago sativa*)



WILD LUPINE
(*Lupinus perennis*)

BLUE AND PURPLE FLOWERS

GROUP VIII

Leaves alternate. Flowers composite.

Chicory. Succory (*Cichorium Intybus*). Composite family.
July to October.

A familiar perennial. The showy, generally blue, flowers are set directly upon the stem, with long (perfect) rays, toothed at the end. The stem-leaves are clasping. The stout, unsymmetrical stem (about two feet) bears its blossoms not only in the open fields but by the dusty roads about cities.

Blazing Star (*Liatris scariosa*). Composite family.
August, September.

A showy perennial, several feet high, from globular tuber, bearing (one inch) *magenta-purple flower-heads*. Corolla of the (perfect) floret tubular, five-lobed, surrounded by bristles (pappus); styles elongated. Leaves narrow. Dry ground.

Ironweed (*Vernonia noveboracensis*). Composite family.
July to September.

A tall perennial with smooth stem bearing *purple flower-heads, at the top*; the (perfect) florets all tubular, bracts of involucre with spreading bristly appendages. The leaves are lance-shaped. Low ground. (From William Vernon.)

Robin's Plantain (*Erigeron pulchellus*). Composite family.
May, June.

An upright perennial with unbranched hairy stem, rising from a cluster of root-leaves, itself bearing leaves; at the top several (one to one and one-half inch) flower-heads like asters (but blooming much earlier) with long, *narrow*, lavender, pistillate ray-flowers and yellow disks of perfect, tubular flowers. The root-leaves are inversely egg- or spoon-shaped, somewhat toothed; the stem-leaves are partly clasping. Thickets, banks, and fields, sometimes covering large areas.



CHICORY
(*Cichorium Intybus*)



BLAZING STAR
(*Liatris scariosa*)



IRONWEED
(*Vernonia noveboracensis*)



ROBIN'S PLANTAIN
(*Erigeron pulchellus*)

BLUE AND PURPLE FLOWERS

BLUE AND PURPLE ASTERS (COMPOSITE FAMILY)

Late flowering herbs, mostly perennials, named from *aster*, a star. The flower-heads have yellow centres (disks) of tubular, perfect flowers, surrounded by pistillate rays. A few common ones have been selected. They may be divided into these three classes: (1) Some leaves heart-shaped and slender-stalked, (2) leaves clasping, and (3) neither. Into (1) fall *macrophyllus*, *undulatus*, and *cordifolius*; into (2) *novæ-angliæ*, *novi-belgii*, *puniceus*, and *patens*; into (3) *spectabilis*, *linariifolius*, and *lateriflorus*.

New England Aster (*Aster novæ-angliæ*). August to October.

A tall species, with *stout hairy branches*. Flower-heads an inch or more across, with thirty or more long magenta-purple rays. Bracts of the involucre spreading. Finely hairy leaves, lance-shaped and *clasping*, without teeth. Open places.

Showy Aster (*Aster spectabilis*). August to October.

A *low, stiff stem* bears a few flowers, as large as a fifty-cent piece, with twenty to thirty long purple rays. Leaves thick, lower oval, pointed, with long, slender stems and few teeth; upper lance-shaped to linear, without teeth and without stalks. Sandy ground near coast.

New York Aster (*Aster novi-belgii*). August to October.

A *smooth, slender stem*, maximum three feet. Flower-heads (half-dollar size) loosely clustered, the (violet) rays averaging about twenty, bracts of the involucre inclined to spread. Leaves lance-shaped, sometimes slightly toothed, *somewhat clasping*. Generally near the sea.



BLUE AND PURPLE FLOWERS

Starved Aster. Calico Aster (*Aster lateriflorus*). August to October.

An aster averaging three feet in height, with *dark-red* stem and widely spreading branches which bear, generally on one side and with short stalks, many small asters (less than one-half inch in width) with short *light-purple* or whitish rays and *purplish centres*. Leaves broadly lance-shaped, toothed, practically without stalks. Open places and thin woods.

Late Purple Aster. Spreading Aster (*Aster patens*). August to October.

A common species in open places, its *rough stem* having a maximum height of three feet. The heads are about the size of a quarter, each at the end of a branch. The rich purple rays average twenty-five. The leaves are somewhat lance-shaped, *heart-shaped* at base and *clasping*, without teeth, the leaves on the branches much smaller. The tips of the involucre-bracts are spreading. Dry ground.

Purple-stemmed Aster (*Aster puniceus*). July to October.

An aster sometimes six feet high or more with *curving, rough-hairy* stem of reddish tint. The flowers, an inch to an inch and a half across, are loosely clustered at the top, and have twenty or thirty light-purple rays. The leaves are lance-shaped, *clasping* at base, generally toothed, rough on the upper side. This coarse but noticeable aster is common in the woods and by the roadsides, especially in damp ground, from Nova Scotia to the Middle West, south to Virginia.



LATE PURPLE ASTER
(*Aster patens*)



STARVED ASTER
(*Aster lateriflorus*)



PURPLE-STEMMED ASTER
(*Aster puniceus*)

BLUE AND PURPLE FLOWERS

Heart-leaved Aster (*Aster cordifolius*). August to December.

A species averaging two or three feet high, noticeable for the resemblance of its flower-cluster in form and color to that of the common lilac. The flowers are not quite as large as a ten-cent piece. The leaves are *heart-shaped, with stalks*. Very common along woody roadsides and in open woods.

Stiff Aster. Linear-leaved Aster (*Aster linariifolius*).
Late July to October.

A common *low* aster with maximum height of two feet, growing in sandy soil by the roadsides, having a short, stiff stem. Its straight and *narrow, rough and shiny leaves* somewhat suggest the foliage of the fir. The light-purple or violet flowers are about the size of a quarter and grow separately on the ends of branches.

Large-leaved Aster (*Aster macrophyllus*). August, September.

A plant of the open woods, with stout stem which rises from a clump of *large, heart-shaped leaves, each upon a long, slender stalk*. The flowers, about the size of a quarter, vary from lilac to whitish, and average from twelve to fifteen rays. The upper leaves are without stalks, the lower heart-shaped with long stalks, the others with broadly winged stalks; all toothed.



BLUE AND PURPLE FLOWERS

Wavy-leafed Aster (*Aster undulatus*). August to October.

An aster averaging two feet high with rough stem and leaves variously shaped, some with *broad stalks clasping the stem*, mostly pointed, some heart-shaped; the edges may be wavy or toothed. The pale-violet flower-heads are about the size of a nickel, with not more than fifteen rays. Waysides.

The abundance of the Composite under adverse conditions represents a survival of the fittest. Blanchan, in "Nature's Garden" thus happily sums it up: "Doubtless the aster's remote ancestors were simple green leaves around the vital organs, and depended upon the wind, as the grasses do—a most extravagant method—to transfer their pollen. Then some rudimentary flower changed its outer row of stamens into petals, which gradually took on color to attract insects and insure a more economical method of transfer. . . . As flowers and insects developed side by side, and there came to be a better and better understanding between them of each other's requirements, mutual adaptation followed. The flower that offered the best advertisement, as the composites do, by its showy rays; that secreted nectar in tubular flowers where no useless insect could pilfer it; that fastened its stamens to the inside wall of the tube where they must dust with pollen the under side of every insect, unwittingly cross-fertilizing the blossom as he crawled over it; that massed a great number of these tubular florets together where insects might readily discover them and feast with the least possible loss of time,—this flower became the winner in life's race."



WAVY-LEAVED ASTER
(*Aster undulatus*)

BLUE AND PURPLE FLOWERS

GROUP IX

Leaves alternate. Flowers not bell-shaped, five-lobed, five-petalled, papilionaceous, or composite.

Purple-fringed Orchis (*Habenaria fimbriata*). Orchis family. June to August.

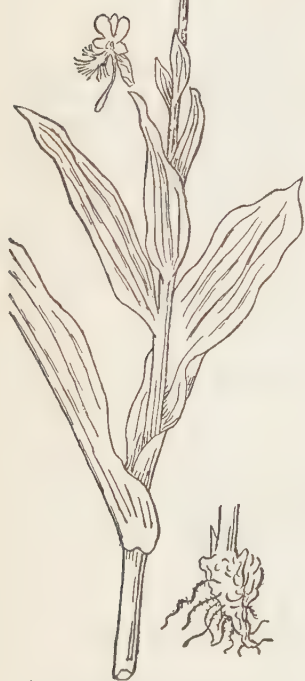
A tall and showy orchis, sometimes reaching three feet. The spike (sometimes a foot long) is loosely flowered; the flowers are large, light-purple or pinkish, with long spurs and fringed lip. The lower leaves are oval to lance-shaped, the upper much smaller. Wet meadows. Smaller Purple-fringed Orchis (*Habenaria psychodes*) is similar but much smaller, with a denser spike of smaller flowers, with lip less fringed.

Day Flower (*Commelina virginica*). Spiderwort family. June to September.

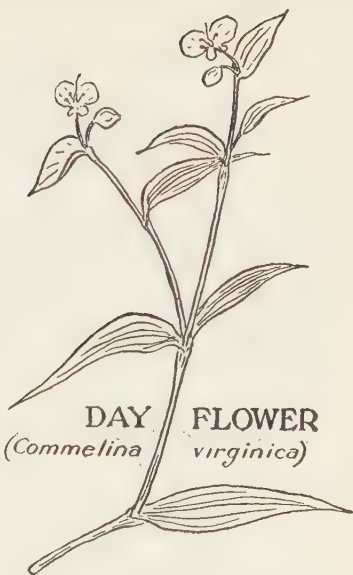
This dainty blossom is found from southern New York southward and westward. Its life, a brief one at the best, as its name implies, is brought to a sudden close by picking it, for the delicate petals are promptly reduced to pulp. But growing by a wood path along the river bank, their beautiful blue strikes the eye at once. The slender, somewhat zigzag stem tends to take root at the joints. The lance-shaped, parallel-veined leaves are clasping. There are two rounded petals and one insignificant one, three unequal sepals and a prominent style; three fertile, and generally three sterile, stamens. A spathe-like bract subtends the flower. Named for the Commelin brothers, two of whom were successful botanists.

Sea Rocket (*Cakile edentula*). Mustard family. July to September.

A low fleshy spreading annual in sandy soil by the seaside. The flowers are small, purplish; petals four. The leaves are thick, toothed, or with wavy margins. (From the Arabic.)



PURPLE-FRINGED ORCHIS
(*Habenaria fimbriata*)



DAY FLOWER
(*Commelina virginica*)



SEA ROCKET
(*Cakile edentula*)

BLUE AND PURPLE FLOWERS

Blue Linaria. Blue Toadflax (*Linaria canadensis*).

Figwort family. May to September.

A biennial or annual with slender, upright stem, several inches to two feet high; flowers very small, light-blue, racemed on stem; calyx five-pointed, corolla two-lipped, *with spur*, four stamens in pairs of unequal length. The leaves are linear, generally alternate, not toothed. Found in sandy soil. (Name from *linum*, flax.)

Great Lobelia (*Lobelia siphilitica*). Lobelia family.

July to October.

A somewhat hairy perennial with maximum height of three feet; flowers light-blue, nearly one inch long, with stalks; calyx five-pointed, hairy; corolla (one-half inch) two-lipped, lips respectively two-cleft and three-cleft, the former split to the bottom, so that the (united) stamens are free from the corolla. Leaves pointed at both ends, irregularly toothed, without stalks, except the lower, which are inversely egg-shaped and long-stalked. Low ground. Named for Mathias de l'Obel.

Indian Tobacco (*Lobelia inflata*). Lobelia family. July to November.

An upright annual, maximum height two feet; flowers similar to above but much smaller and with noticeably *inflated pod*. Leaves egg-shaped to oblong, sparingly toothed. This is the officinal lobelia formerly much used as an emetic.

Pale Spiked Lobelia (*Lobelia spicata*). Lobelia family.

June to August.

An upright perennial, or biennial, with maximum height of four feet and slender leafy stem. The flowers are similar to those of Indian Tobacco, but the pod is not inflated.



BLUE LINARIA
(*Linaria canadensis*)



INDIAN TOBACCO
(*Lobelia inflata*)

RED AND ORANGE FLOWERS

CHART OF RED AND ORANGE FLOWERS

Directions.—First note whether plant falls in Class I, II, or III, then follow out to right. When a group-number is reached turn to page indicated and look through the group.

Class I.—Plants with leaves opposite¹=Group I, p. 288

Class II.—Plants with leaves whorled²=Group II, p. 290

Class III.—Plants with leaves otherwise=Group III, p. 292

¹ Arranged in pairs, *i.e.*, opposite each other, *on the stem*, not at the root.

² Three or more on a level, *circling the stem*, not at the root.

RED AND ORANGE FLOWERS

GROUP I

Leaves opposite.

Pimpernel. Poor Man's Weatherglass (*Anagallis arvensis*).

Primrose family. June, July.

A low annual with calyx and corolla five-parted; stamens five. The blossoms shut at about four o'clock. Blue Pimpernel (*Anagallis arvensis cœrulea*) is an occasional find.

" . . . And fairy fingers

Close unseen the pimpernels. . . ." —*Calverly*.

Oswego Tea. Bee Balm (*Monarda didyma*). Mint

family. July, August.

A perennial, three feet high, with square stem, and flowers in a head. Calyx five-toothed; corolla two inches long, two-lipped, upper lip erect, lower three-lobed; stamens long. The leaves are egg-shaped to lance-shaped, pointed, sharply toothed, with stalks. Woods. (See cut of Wild Bergamot, page 235.)

Fire Pink (*Silene virginica*). Pink family. June, July.

An upright herb, maximum height two feet, gummy-hairy. Scarlet flowers (one to one and one-half inches broad) with five petals, notched. Leaves lance-shaped. Woods. New York, South and West.

Trumpet Honeysuckle (*Lonicèra sempervirens*). Honey-suckle family. Spring, summer.

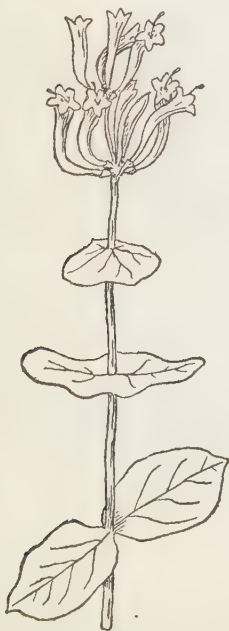
A climbing vine. The flowers are without stalks, in whorled clusters, red outside, yellow inside; corolla (one to one and one-half inches) trumpet-shaped; style projecting. The leaves are oblong, upper confluent. Thickets. Named after Adam Lonitzer.



PIMPERNEL
(*Anagallis arvensis*)



FIRE PINK
(*Silene virginica*)



TRUMPET HONEYSUCKLE
(*Lonicera sempervirens*)

RED AND ORANGE FLOWERS

GROUP II

Leaves whorled.

Wood Lily (*Lilium philadelphicum*). Lily family. Summer.

An upright unbranched stem, with maximum height of three feet, bears at the top a large (two to four inches) flower, with six sepals, red, purple-spotted inside, long-clawed; stamens six. There are four to six leaves in a whorl. Dry ground.

Wake Robin (*Trillium erectum*). Lily family. Spring.

A perennial with stem about a foot high, bearing three leaves in a whorl, almost without stalks. From their junction rises a stalk one to three inches long bearing a large flower (one and one-half to three inches wide) with three sepals, three petals. *Trillium sessile* is similar but without flower-stalk. Woods.

Turk's-cap Lily (*Lilium superbum*). Lily family. Summer.

A tall single stem, several feet high, bears at the top a number of flowers in a cluster. The flowers (three inches long) are drooping, with six perianth-divisions curved backward, and six stamens. The leaves are lance-shaped, pointed. Rich ground.

The *Lilium superbum* is not to be confounded with the Day Lily (*Hemerocallis fulva*), which is of a deep orange, has a half dozen or more blossoms on a stalk, and long, flat, upright leaves *from the base only*. The Day Lily has so far escaped from cultivation that Mathews includes it among the wild flowers. It grows freely by the roadside in low ground in central Connecticut.



Wood Lily (*Lilium philadelphicum*)



WOOD LILY
(*Lilium philadelphicum*)



WAKE ROBIN
(*Trillium erectum*)



TURK'S-CAP LILY
(*Lilium superbum*)

RED AND ORANGE FLOWERS

GROUP III

Leaves otherwise than opposite or whorled.

Crimson Clover. Italian Clover (*Trifolium incarnatum*).
Pulse family.

An upright annual practically unbranched, six inches to two feet high, with showy, crimson heads an inch or two long. Leaves of three somewhat wedge-shaped leaflets. Fields. Common in Italy, now multiplying in eastern United States.

Prince's Feather (*Polygonum orientale*). Buckwheat family. Late summer, early autumn.

A branching annual, one to several feet tall, with large, egg-shaped, pointed leaves with stalks. The flower, much larger than is common in the polygona, is in a showy compact spike (one to four inches long), has a rose-colored calyx, seven projecting stamens, and a style split at the end. The leaves are finely hairy at the edge. This rather attractive plant is found in waste places in the eastern part of the country.

Cardinal-flower (*Lobelia cardinalis*). Lobelia family.
Summer.

A striking (one to one and one-half inch) perennial of the woods borne in the axils of the leaves or in a long terminal raceme on a stem sometimes reaching four feet. Calyx is five-cleft with short tube, corolla of two lips, one split, so that the (united) stamens are free from the corolla. The leaves are oblong to lance-shaped, slightly toothed. Low ground. Common along banks of rivers. Miss Swett says:

“ When the scarlet cardinal tells
Her dream to the dragon fly,
And the lazy breeze makes a nest in the trees,
And murmurs a lullaby,
It is July.”

PRINCE'S FEATHER
(*Polygonum orientale*)



CRIMSON CLOVER
(*Trifolium incarnatum*)



CARDINAL-FLOWER
(*Lobelia cardinalis*)

RED AND ORANGE FLOWERS

Painted Cup (*Castilleja coccinea*). Figwort family. Spring, summer.

A hairy stem, not over two feet high. Flowers small, yellow, corolla two-lipped. Root-leaves mostly without teeth, oblong; stem leaves deeply cut, leaves scarlet at top. Low ground. Named after Domingo Castillejo.

Butterfly-weed (*Asclepias tuberosa*). Milkweed family.
June to August.

A leafy perennial, maximum height three feet, branching at the top and bearing many-flowered umbels of flowers like milkweed (page 198). Leaves oblong to lance-shaped, almost without stalks. Dry fields. Sometimes the flower is bright-yellow instead of orange. This is the "pleurisy-root" of domestic medicine.

Wild Columbine (*Aquilegia canadensis*). Crowfoot family.
May, June.

A branching perennial, a foot or two high, with showy pendulous (one to two inches) flowers (red, blue, white) ending the branches; sepals five, resembling petals; petals five, yellow inside, with short tip prolonged into hollow spurs; pistils five. The lower leaves are long-stalked and doubly compounded in threes, the leaflets wedge-shaped, the upper with short stalks, or none, and variously lobed.

" . . . Columbines, in purple dressed,
Nod o'er the ground-bird's hidden nest."—*Bryant*.

Pitcher-plant (*Sarracenia purpurea*). Pitcher-plant family.
June.

A curious perennial with leafless stem, bearing one large (two inches) nodding flower, of five sepals and five petals, bent inwards. Leaves hollow, pitcher-shaped, from the base only. Bogs. Named for Dr. Michael Sarrasin.



PAINTED-CUP
(*Castilleja coccinea*)



BUTTERFLY-WEED
(*Asclepias tuberosa*)



WILD COLUMBINE
(*Aquilegia canadensis*)



PITCHER-PLANT
(*Sarracenia purpurea*)

RED AND ORANGE FLOWERS

Devil's Paint-Brush. Grim the Collier (*Hieracium aurantiacum*). Composite family. June to September.

A low perennial with hairy stem rising from a cluster of basal leaves and bearing at its top a cluster of small (less than one inch) orange flower-heads beset with black hairs. The flowers are strap-shaped, and all perfect, as in the dandelion. A troublesome weed in some localities, usurping entire fields and ruining them for cultivation, but offering a pretty sight when struggling with the daisy and the buttercup for the supremacy of a field intended by the farmer to serve a more useful purpose. One can see such fields in June during the drive from Willoughby Lake, Vermont, to the Barton Station.

The prevailing color of this common genus, named from the Greek word for hawk, is bright yellow. Familiar examples, to be found in the section for yellow flowers, are Rough Hawkweed (*H. scabrum*), Canada Hawkweed (*H. canadense*), Panicked Hawkweed (*H. paniculatum*), and Rattlesnake Weed (*H. venosum*). One or more of these species may be found in dry, open woods almost anywhere. Though by no means beautiful they are in general rather striking weeds; Miller and Whiting speak, for example, of the jaunty carriage of Rough Hawkweed. Grim the Collier, so named on account of the black hairs about the flower-head, is by far the most decorative member of the group.



DEVIL'S PAINT-BRUSH
(*Hieracium aurantiacum*)

GREEN OR GREENISH FLOWERS

CHART OF GREEN OR GREENISH FLOWERS

Directions.—Note whether plant falls in Class I or II, then follow out to right. When group-number is reached turn to page indicated and look through the group.

Class I.—Upright plants { Shrub¹=Group I, p. 302
Herb²=Group II, p. 302

Class II.—Climbing or recumbent plants=Group III, p. 310

¹ A woody plant smaller than a tree.

² A plant with soft stem dying down every year.

GREEN OR GREENISH FLOWERS

GROUP I

SHRUBS

Poison Sumach. **Dogwood** (*Rhus Vernix*). Cashew family. June.

A tall shrub with leaves pinnately compound, seven to thirteen egg-shaped leaflets, *not toothed*. The little green (polygamous) flowers are in open clusters *in the axils*; each has five petals and five stamens. Fruit whitish. Swamps.

Staghorn Sumach (*Rhus typhina*). Cashew family. June.

A tall shrub or small tree with velvety branches and small flowers (similarly formed to above) in close pyramidal clusters *at the top*. The leaves are compound, with eleven to thirty-one leaflets, lance-shaped, pointed, toothed, narrow. Fruit with crimson hairs. Hillsides. Smooth Sumach (*Rhus glabra*) is similar but with smooth stem, and maximum height of twenty feet, and fruit less hairy. Dwarf Sumach (*Rhus copallina*) has fewer, dark-green, toothless leaflets and *winged leaf-stalks*.

GROUP II

HERBS

Arrow Arum (*Peltandra virginica*). Arum family. June.

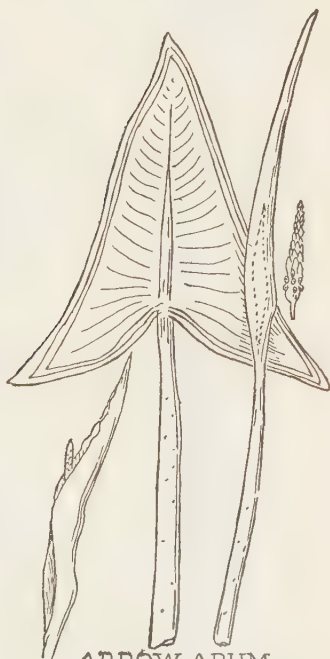
A water plant with arrow-shaped upright leaves a few inches to one foot in length. A spathe, four to eight inches long, closely surrounds the spadix which is packed with small green flowers, the upper consisting of masses of anthers, the lower, fertile, of solitary ovaries, surrounded by rudimentary, scale-like stamens. In still water. (Greek name for shield and anther.)



POISON SUMACH
(*Rhus Vernix*)



STAGHORN SUMACH
(*Rhus typhina*)



ARROW ARUM
(*Peltandra virginica*)

GREEN OR GREENISH FLOWERS

Tubercled Orchis (*Habenaria flava*). Orchis family.
June.

A foot or two high, with stout stem and narrow spike of flowers with three sepals and petals, the third petal (lip) longer, with a tubercle at its base; spur slender. Leaves egg-shaped to lance-shaped.

Bracted Orchis (*Habenaria bracteata*). Orchis family.
May to August.

A stout stem, six inches to two feet high. Spike open, with very long bracts. Upper leaves pointed, lower inversely lance-shaped. Wet woods.

Ragged Fringed Orchis (*Habenaria lacera*). Orchis family. July, August.

A slender orchis, a foot or two high, bearing an open spike of yellowish-green irregular flowers, with three-divided lip, each division with a ragged fringe. Leaves lance-shaped, five inches long or more, clasping the stem.



ROADSIDE PEPPERGRASS
(*Lepidium ruderale*)

Roadside Peppergrass (*Lepidium ruderale*). Mustard family.
All summer.

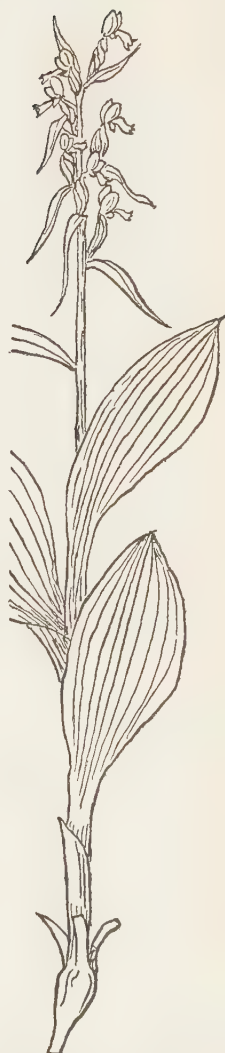
A low weed with tiny flowers, with no petals, four sepals, and two stamens. The flowers are in raceme, followed by flat, rounded pods. Leaves narrow, lower somewhat lobed. *L. virginicum* has four tiny white petals and toothed leaves. (Greek for little scale.)



RAGGED FRINGED ORCHIS
(Habenaria lacera)



TUBERCLED ORCHIS
(Habenaria flava)



BRACTED ORCHIS
(Habenaria bracteata)

GREEN OR GREENISH FLOWERS

Adder's Mouth (*Microstylis unifolia*). Orchis family.

July, August.

A slender orchis, six inches high. The flowers are minute, greenish-white, long-stalked, in raceme, with linear petals, and three-lobed lip. The leaf is single, oval, without stalk. Low ground.

Smartweed (*Polygonum Hydropiper*). Buckwheat family.

August, September.

A common annual weed. The small flowers (with four-parted calyx, no petals) are in long racemes. Leaves long-pointed, with short stems, stipules united in slender cylinders (ocreae). Wet ground.

Pigweed. Lamb's Quarters (*Chenopodium album*, var. *viride*). Goosefoot family. All summer.

An annual weed, several feet high. The tiny pale-green flowers with calyx, no petals, are in short axillary spikes. Leaves of diamond-egg shape with irregular teeth. Common everywhere. (Greek signifies goose-foot.)

Dock (*Rumex*). Buckwheat family. Summer.

Herbs bearing racemes, generally interrupted, of small perfect or polygamous flowers with no corollas, six sepals, three closed triangularly to enclose the seed, their edges forming wings, sometimes bearing bristles. On the outer surface of one or more "wings" may appear a tubercle. Curled Dock (*Rumex crispus*) with large, curly-edged leaves, is common. Great Water Dock (*R. Britannica*) grows in swamps. Bitter Dock (*R. obtusifolius*) has lower leaves with long stalks, upper with short stalks, all rounded or heart-shaped at the base, broadly lance-shaped, or oblong-lance-shaped. Its "wings" have several bristles. The sepals, tufted stigmas, and a seed-wing with tubercle are shown in the enlargements.

"But the mandrakes, and toadstools, and docks, and darnels,
Rose like the dead from their ruined charnels."—*Shelley*.



ADDER'S MOUTH
(*Microstylis unifolia*)



SMARTWEED
(*Polygonum Hydropiper*)



PIGWEED
(*Chenopodium album* var. *viride*)



BITTER DOCK
(*Rumex obtusifolius*)

GREEN OR GREENISH FLOWERS

Whorled Milkweed (*Asclepias verticillata*). Milkweed family. Summer, autumn.

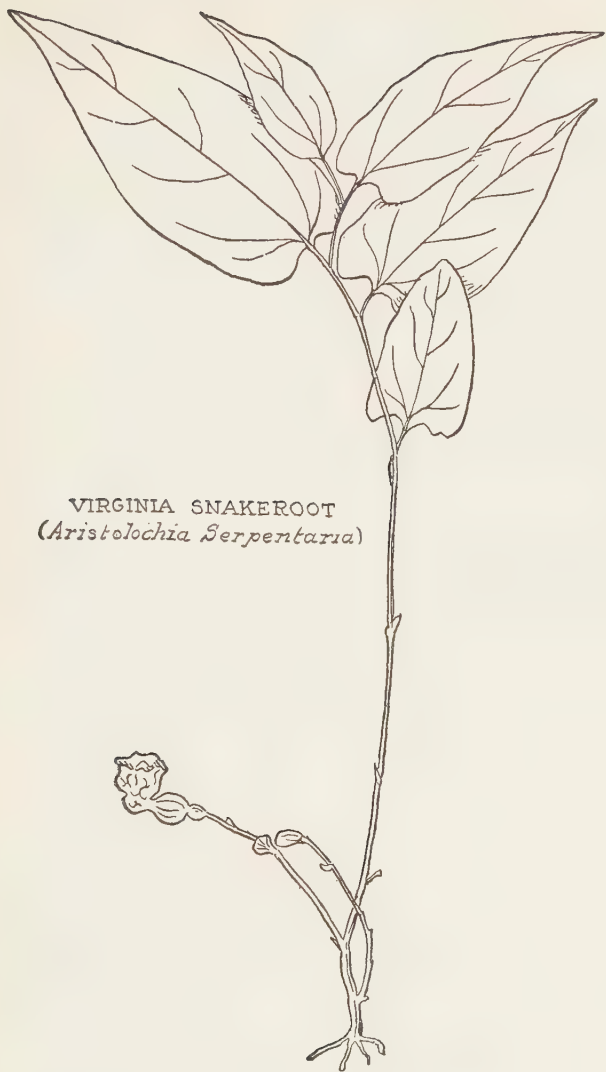
A perennial herb, not over two and one-half feet high, with the small flowers characteristic of the milkweeds (page 198) in small lateral and terminal umbels. The leaves are whorled, linear, with margins rolled back. Dry hills.

Virginia Snakeroot (*Aristolochia Serpentaria*). Birthwort family. June, July.

A perennial herb, average height a foot, with a soft-hairy stem bearing heart-shaped, long-pointed leaves. The small greenish flowers are few, near the base of the plant on long-stalks; calyx curved, three-lobed; petals wanting. Connecticut, West and South.



WHORLED MILKWEED
(*Asclepias verticillata*)



VIRGINIA SNAKEROOT
(*Aristolochia Serpentaria*)

GREEN OR GREENISH FLOWERS

Early Meadow Rue (*Thalictrum dioicum*). Crowfoot family. May.

A delicate branching perennial, maximum height two feet. The small stamen-bearing and pistil-bearing flowers are found on different plants. The former are tassel-like on account of the many delicate stamens, both have four or five petal-like sepals. Leaflets drooping, rounded, lobed. Rocky woods.

See also **POISON IVY**, below.

GROUP III

CLIMBING OR RECUMBENT

Poison Ivy. Poison Oak (*Rhus Toxicodendron*). Cashew family. June, July.

A woody plant, sometimes upright, sometimes climbing. The small green flowers (with five petals and five-cleft calyx) are in loose axillary clusters, polygamous, *i.e.*, with perfect, staminate, and pistillate flowers on the same plant or different plants. There are *three* four-sided to egg-shaped leaflets, mostly pointed, unequally notched, wavy, or cut, without teeth. Roadsides, banks, and woods. Poisonous to many on coming in contact with delicate skin, especially in dark, damp places.

Carrión-flower (*Smilax herbacea*). Lily family. May, June.

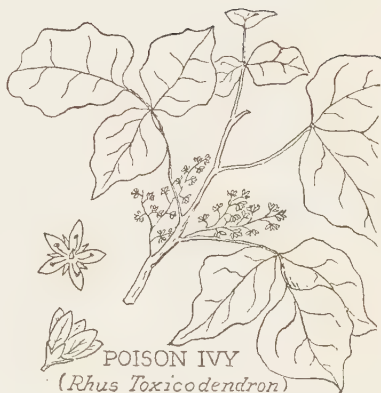
A vine with smooth stem and flowers in close rounded clusters, each with six-divided perianth; no pistil on the stamen-bearing flower. The leaves are somewhat heart-shaped. Bull-brier (*S. rotundifolia*) is known by its prickles. Woods.

Climbing Bittersweet. Waxwork (*Celastrus scandens*). Staff Tree family. June.

A twining shrub, with small five-petalled, polygamo-dioecious flowers in clusters (open racemes). Leaves egg-shaped to oblong, with teeth.



EARLY MEADOW RUE
(*Thalictrum dioicum*)



POISON IVY
(*Rhus Toxicodendron*)



CARRION-FLOWER
(*Smilax herbacea*)



CLIMBING BITTERSWEET
(*Celastrus scandens*)

BROWNISH AND VARIEGATED FLOWERS

BROWNISH AND VARIEGATED FLOWERS

Skunk Cabbage (*Symplocarpus foetidus*). Arum family.

February to April.

A low perennial with leaves sometimes two feet long. The small flowers are packed on a spadix with hood (spathe), variously colored (green-purple-yellow-brown) and mottled. The tiny perfect flowers have no petals, four sepals, four stamens and a pistil, the ovary embedded in the spadix. Wet ground. (Greek signifies connected fruit.)

Groundnut. Wild Bean (*Apios tuberosa*). Pulse family.

July to September.

A vine with papilionaceous purplish-brown flowers in clusters on long stalks, odorous. The leaves have five to seven pointed leaflets, without teeth. Root-stalk like a string of beads. Shady places. The cut, with the flowers separated to show their arrangement, gives a very inadequate idea of this closely packed, decorative cluster. Greek means pear, referring to the tubers.



GROUNDNUT
(*Apios tuberosa*)



SKUNK CABBAGE
(*Symplocarpus foetidus*)

BROWNISH AND VARIEGATED FLOWERS

Wild Ginger (*Asarum canadense*). Birthwort family.
April, May.

A low perennial with several large, angularly heart-shaped leaves on long hairy stalks. Near the ground is a single, inconspicuous, bell-shaped, brownish (one inch) flower having a calyx with three-pointed rim, no corolla.

Beech-drops. Cancer-root (*Epipägus virginiana*). Broomrape family. August to October.

A low plant with branching fleshy stem, no leaves. Flowers small, in spike, corolla tubular, four-lobed, brown-purple-yellow, style projecting. Upper flowers open but sterile, lower closed, fertile. Under beech trees. (Greek, upon, and beech.)



JACK-IN-THE-PULPIT
(*Arisaema triphyllum*)

Jack-in-the-Pulpit. Indian Turnip
(*Arisaema triphyllum*). Arum
family. April to June.

A familiar perennial bearing a striped hood (spathe), variously colored (green-purple-white), under which stands "Jack," consisting of little flowers packed on the lower part of a spadix. The sterile flower consists of a few anthers, the fertile of an ovary, generally on separate plants (dioecious). (Greek, arum, and blood.)



WILD GINGER
(*Asarum canadense*)



BEECH-DROPS
(*Epifagus virginiana*)

PART II

FRUITS

RED FRUIT

CHART OF RED FRUIT

Directions.—First note whether plant falls in Class I, II, or III, then follow out to right. When a group-number is reached turn to page indicated and look through the group.

Class I.—Shrubs¹ { Leaves opposite² = Group I, p. 324
 { Leaves alternate = Group II, p. 328

Class II.—Herbs³ = Group III, p. 334

Class III.—Creeping or climbing = Group IV, p. 342

¹ Woody plants smaller than trees.

² Arranged in pairs, *i. e.*, opposite each other, *on the stem*, not at the root.

³ Plants with soft stems dying down every year.

RED FRUIT

GROUP I

SHRUBS. OPPOSITE LEAVES

Indian Currant (*Symphoricarpos orbiculatus*). Honey-suckle family.

A shrub with maximum height of five feet, its stem at first upright, later curved by the weight of the fruit. Leaves oval, not toothed, blunt-pointed, short-stalked. Fruit a small, ovoid berry, growing in short clusters, practically without stalks, in the axils of the leaves, remaining through the winter; two bony nutlets. New Jersey, West and South. Autumn. The generic name is from the Greek for fruit borne together.

Flowering Dogwood (*Cornus florida*). Dogwood family.

A shrub or small tree with broadly oval, pointed leaves with stalks. Fruit oval, closely clustered at the ends of long stalks. I understand this to be the fruit that Bacon calls "cornelians." Early autumn.

The Flowering Dogwood is very common in the open woods farther south than New England. This is the tree whose decorative white blossoms with four (apparent) white petals, brighten the woods of early spring, for example, along the Pennsylvania railway, just as the dainty blossoms of the Shad-bush (*Amelanchier*) announce the opening of the season farther north.



FLOWERING DOGWOOD
(*Cornus florida*)

INDIAN CURRANT
(*Symphoricarpos orbiculatus*)

RED FRUIT

Hobble-bush (*Viburnum alnifolium*). Honeysuckle family.

A rather straggling shrub with rusty twigs. The leaves, heart-shaped at the base, are abruptly pointed, finely and sharply toothed. Fruit coral-red, berry-like, in flat terminal clusters. The name is derived from the fact that when the branches descend to the ground, and take root, they are supposed to trip the unwary. Damp woods.

Cranberry-tree (*Viburnum Opulus*, var. *americanum*). Honeysuckle family.

A shrub three to twelve feet high. The broad leaves have three spreading and pointed lobes. The berry-like fruit (drupe) is bright-red, globular, with a flat stone, in a terminal cluster. The skin of the fruit is very thin and delicate, like that of the currant, to which it bears more general resemblance than the fruits of the other viburnums. The leaf of the Cranberry-tree answers to the same description as that of the Maple-leaved Viburnum, but is easily distinguishable by its larger size and greater breadth in proportion to its length. The three lobes are toothed, the hollows between them untoothed. Woods and banks of streams.



HOBBLE-BUSH
(*Viburnum alnifolium*)



CRANBERRY-TREE
(*Viburnum Opulus* var. *americanum*)

RED FRUIT

Fly Honeysuckle (*Lonicèra canadensis*). Honeysuckle family.

A shrub averaging four feet in height, with blunt-pointed leaves, egg-shaped, not toothed. Fruit ovoid berries growing in pairs, on the ends of stalks from the axils. Early summer.

Red-berried Elder (*Sambùcus racemosa*). Honeysuckle family.

A branching shrub averaging six or eight feet in height. The compound leaves have five to seven leaflets, toothed, oblong. Fruit (drupe) bright-red, berry-like, in pyramidal terminal cluster. Early summer. This is less common than the plant that bears the dark purple "Elderberries," known to the domestic wine press.

GROUP II

SHRUBS. LEAVES ALTERNATE.

Hawthorn (*Cratægus rotundifolia*) (from the Greek for strength). Rose family.

A shrub or small tree, with leaves thick and shiny, inversely egg-shaped, sharply toothed. Thorns stout, not over two inches long. Fruit axillary, red, in clusters. Late summer. The fruits are sometimes known as "haws," thus Cowper says—

"I fed on scarlet hips and stony haws."

Cockspur Thorn (*Cratægus Crus-galli*). Rose family.

A shrub or small tree with leaves thick and shiny, inversely egg-shaped, sharply toothed. Thorns slender, two to four inches long. Fruit globular, red, in clusters on short side branches. Late summer or autumn.



RED-BERRIED ELDER
(*Sambucus racemosa*)



FLY HONEYSUCKLE
(*Lonicera canadensis*)



HAWTHORN
(*Crataegus rotundifolia*)



COCKSPUR THORN
(*Crataegus Crus-galli*)

RED FRUIT

Staghorn Sumach (*Rhus typhina*). Cashew family.

A tall shrub or small tree with compound leaves whose leaflets (eleven to thirty-one) are lance-shaped, pointed, and toothed. Fruit small, globular, *beset with crimson hairs*, in upright pyramid, closely clustered, at the top of the plant. Late summer. This innocuous Sumach is distinguished from the Poison Sumach or Poison Dogwood (*Rhus vernix*) by its *terminal red fruit* and more numerous and *narrower leaflets*. The poisonous variety has open clusters of *white or dun-colored berries in the axils*. Smooth Sumach (*Rhus glabra*) is similar to *Rhus typhina*, but *smoother, and with fruit less hairy*.

The Staghorn Sumach is not to be confounded with the inappropriately named Dwarf Sumach (*R. copallina*). This is really a tree except as found under cultivation. It has fewer, and untoothed, leaflets. Moreover, its leafstalks are *distinctly winged*.

Purple Flowering Raspberry (*Rubus odoratus*). Rose family.

A straggling shrub with maximum height of five feet, and broad leaves having three to five lobes, toothed, the middle lobe long. Fruit resembles the common raspberry but is flatter, and generally less full. Late summer, in open woods, quite common in some localities.

Spice Bush (*Benzoin aestivale*). Laurel family.

A tall shrub with leaves oblong to inversely egg-shaped. Fruit (drupe) red, shining, berry-like, pear-shaped, in clusters along the branches, on short stalks. Early autumn.



SMOOTH SUMAC
(*Rhus glabra*)



SPICE BUSH
(*Benzoin æstivale*)



PURPLE FLOWERING RASPBERRY
(*Rubus odoratus*)

RED FRUIT

Sweetbrier. Wild Rose. Eglantine (*Rosa rubiginosa*).

Rose family.

A bush with maximum height of six feet with small, rounded, doubly toothed leaflets and backward-bending prickles. Fruit oval, resembling large berry (one-half to three-fourths inch long or larger) sometimes called "hips."

"Rich store of scarlet hips is mine."

—Wordsworth.

Dog Rose (*Rosa canina*).

Similar to the Sweetbrier but with singly toothed leaflets, and fruit never over three-fourths of an inch long. Pasture Rose (*Rosa humilis*) is a low bush, with slender stem and slender, generally straight prickles below the leafstalks. Fruit more or less globular. Swamp Rose (*Rosa carolina*) is a rather tall bush, sometimes eight feet high, with stout, curving prickles. Leaflets generally seven, pointed at each end and with stems. Fruit more or less globular.

Winterberry. Black Alder (*Ilex verticillata*). Holly family.

A shrub, sometimes tall, with leaves oval or inversely egg-shaped, pointed, toothed. Fruit a small coral-red berry with a black spot (stigma) at the top, solitary or spirally arranged on the branches with short stalks; nutlets four to six. Early summer.

This is an extremely decorative shrub in the fruiting season, and the berries persist well into the winter. It is apt to be found in rather low ground near the water, whether fresh or salt. It grows in profusion, for example, on the edge of the sand dunes at Ipswich, where this sketch was made.



SWAMP ROSE
(*Rosa carolina*)



SWEETBRIER
(*Rosa rubiginosa*)



WINTERBERRY
(*Ilex verticillata*)

RED FRUIT

Choke Cherry (*Prunus virginiana*). Rose family.

A tall shrub with leaves egg-shaped to oblong, obtusely pointed, with fine teeth. Fruit little dark-red cherries in pendant racemes. Midsummer.

Mountain Holly (*Nemopanthus mucronàta*). Holly family.

A shrub with usual height of seven feet; leaves oblong, generally without teeth, pointed or with a bristle-tip (mucro). Fruit (drupe) coral-red, berry-like, generally solitary in axils of leaves, on long slender stalks. Early autumn. The Greek signifies flower with filiform pedicel (Gray).

Shad Bush (*Amelanchier oblongifolia*). Rose family.

A tall shrub with oblong to ovate leaves, perhaps somewhat heart-shaped at base, pointed, sharply toothed. Fruit berry-like (pome), round, red, sweet, edible. Low ground. Early summer. June Berry, or Shad Bush (*A. canadensis*), is taller, with broader leaves and longer fruit-stalks.

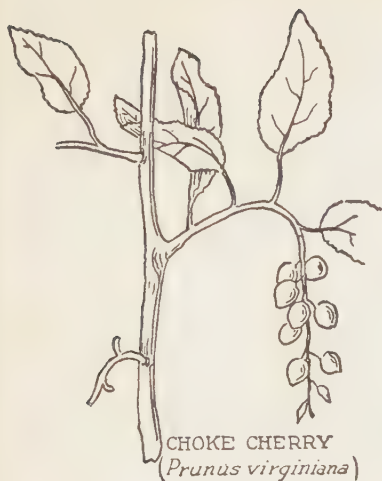
GROUP III

HERBS

Feverwort. Horse Gentian (*Triosteum perfoliatum*).
Honeysuckle family.

A perennial herb a few feet high with stout stem, and with large, opposite, somewhat clasping leaves. Fruit a large orange berry in the axil of the leaf, with the long calyx lobes persisting; nutlets three. Early autumn. Name signifies three bony nuts.

The feverwort is rare in this region. The plant sketched was under cultivation at the summer home in Ipswich of my friend, Dr. Charles Townsend, who writes of the flora and fauna of Essex County, and who transplanted this specimen from Marsh Island.



CHOKE CHERRY
(*Prunus virginiana*)



MOUNTAIN HOLLY
(*Nemopanthus mucronata*)



SHAD BUSH
(*Amelanchier canadensis*)



FEVERWORT
(*Triosteum perfoliatum*)

RED FRUIT

Wake Robin (*Trillium erectum*). Lily family.

An upright herb about a foot high with simple stem terminated by three leaves in a whorl. The leaves are broad, blunt-pointed, almost without stalks. From their junction rises a stalk, which bears a dark-red, egg-shaped berry, about an inch long. Woods. Late summer.

Painted Trillium (*Trillium undulatum*). Lily family.

Similar to the Wake Robin but the leaves have stalks from one-sixth to three-fourths inch long. The scarlet fruit is broadly egg-shaped, nearly an inch long with a suggestion of three blunt angles. Late summer.

Large-flowered Wake Robin (*Trillium grandiflorum*). Lily family.

A trillium with leaves having no stalks; berry an inch or under, rounded, somewhat six-angled.

Sessile-flowered Wake Robin (*Trillium sessile*). Lily family.

This berry has no stalk and is only about one-half inch in diameter.

Nodding Trillium (*Trillium cernuum*). Lily family.

Very broad leaves under which the ovoid purplish-red berry hangs down upon a curved stalk.



PAINTED TRILLIUM
(*Trillium undulatum*)

RED FRUIT

Red Baneberry (*Actaea rubra*). Crowfoot family.

A branching perennial about two feet high, with leaves of many leaflets, the leaflets pointed, cut and toothed. Fruit numerous small berries in a broad raceme at the end of a long, slender stalk. In exceptional cases the fruit-stalks are stout like those of the White Baneberry. Midsummer.

Wild Lily-of-the-Valley (*Maiáanthemum canadense*). Lily family.

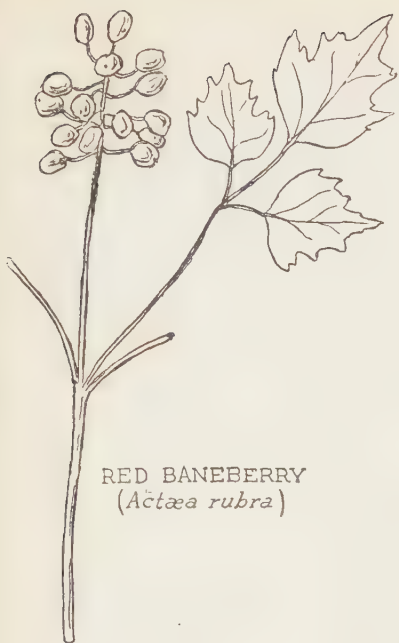
An herb with unbranched stem a few inches high. Two (sometimes three) leaves, long, pointed, with parallel veins and somewhat heart-shaped bases, without stalks or with very short ones. Fruit red berries in terminal racemes, at first only speckled with red.

Bunchberry (*Cornus canadensis*). Dogwood family.

A little herbaceous plant, woody only at the base, with simple stem several inches high, bearing *four to six leaves in a whorl*, egg-shaped or oval, pointed. Fruit (drupe) bright-red, berry-like, clustered at top of stem. Late summer.

Jack-in-the-Pulpit. Indian Turnip (*Arisæma triphýllum*). Arum family.

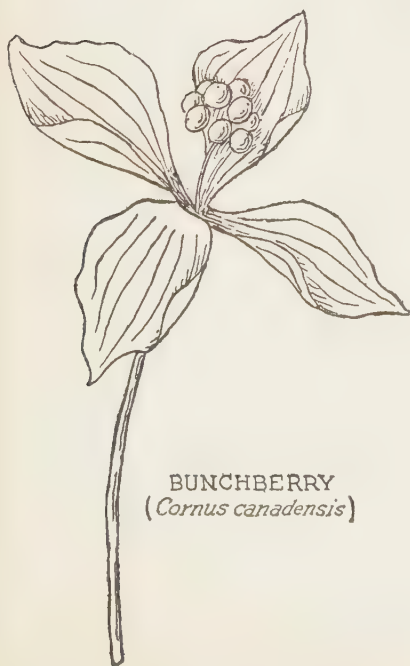
An upright, unbranched perennial, one to three feet high; leaves usually with three pointed leaflets. Fruit bright-red berries, closely packed in a stout spike. Midsummer.



RED BANEBERRY
(*Actaea rubra*)



WILD LILY-OF-THE-VALLEY
(*Maianthemum canadense*)



BUNCHBERRY
(*Cornus canadensis*)



JACK-IN-THE-PULPIT
(*Arisaema triphyllum*)

RED FRUIT

Twisted-stalk (*Stréptopus ròscus*). Lily family.

A plant about a foot and a half high, with rather stout stem. The leaves are egg-shaped, pointed, clasping. The fruit is a red oblong berry hanging from the axils on a delicate, bent stalk, solitary or in pairs. Late summer.

False Solomon's Seal (*Smilacina racemosa*). Lily family.

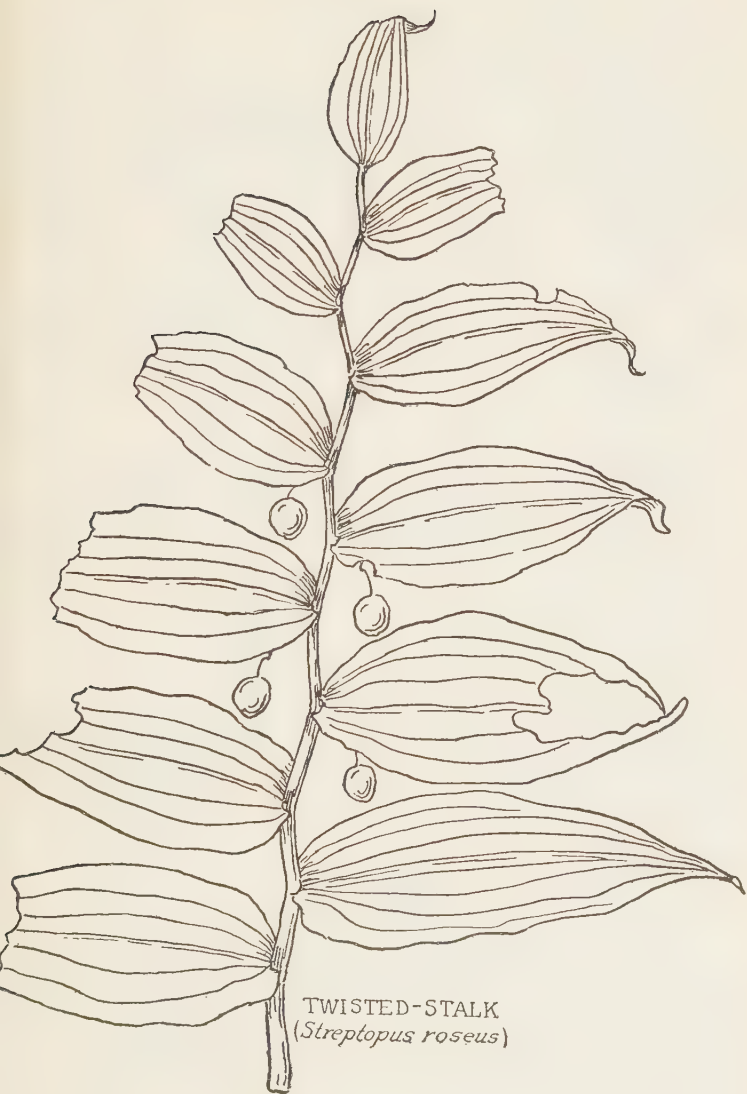
A plant with unbranched stem rising to an average height of two feet; leaves long, pointed, with parallel veins. Fruit a round berry finally dull-red (earlier white, with red speckles), in terminal cluster (compound raceme). Early autumn.



FALSE SOLOMON'S SEAL
(*Smilacina racemosa*)



False Solomon's Seal (*Smilacina racemosa*)



TWISTED-STALK
(*Streptopus roseus*)

RED FRUIT

GROUP IV

Plant creeping or climbing.

N. B.—(Cloudberry and the more familiar Wintergreen, or "Checkerberry," are included in this group (page 344) because their apparent stems are really upright branches of a horizontal stem.

Nightshade. Bittersweet (*Solanum Dulcamara*). Nightshade family.

A branching, climbing or straggling perennial with somewhat woody base. Leaves egg-shaped to heart-shaped, the upper halberd-shaped, or with ears at the base of the leaf. Fruit oval berries in pendant clusters. Moist ground.

Bearberry (*Arctostaphylos Uva-ursi*). Heath family.

A matted vine with delicate stems and thick evergreen leaves. Fruit red, berry-like, few in clusters. Known also as Bilberry. Sandy soil. Common in some localities, for example, on Cape Cod.

Smooth-leaved Honeysuckle (*Lonicera dioica*). Honey-suckle family.

A climbing or woody plant with smooth stem and opposite leaves, the upper united around the stem. Fruit a tightly packed terminal cluster of red ovoid berries one-fourth to one-third inch in diameter. Midsummer.

Mountain Cranberry (*Vaccinium Vitis-Idæa*, var. *minus*). Heath family.

A little shrub with horizontal stem from which rise branches some inches high, bearing at the end little clusters of dark-red berries. The leaves are thick and evergreen, oval to inversely egg-shaped. Rocky ground. Coast of Maine and Labrador. This is shown by Fernald to be the "Wine-berry" of the Norsemen, the northern limit of its growth locating the region of their landing on this continent.



NIGHTSHADE
(*Solanum Dulcamara*)



BEARBERRY
(*Arctostaphylos Uva-ursi*)



MOUNTAIN CRANBERRY
(*Vaccinium Vitis-Idæa*)
var. minus



SMOOTH-LEAVED HONEYSUCKLE
(*Lonicera dioica*)

RED FRUIT

Cloudberry (*Rubus Chamæmorus*). Rose family.

A creeping stem with upright branches. Heart-shaped leaves, lobed and toothed. The solitary, edible fruit resembles a raspberry. Swamps, northward.

Partridge Berry (*Mitchella repens*). Madder family.

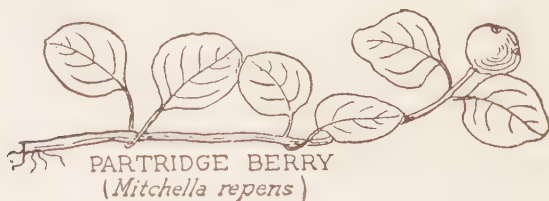
A delicate ground vine six inches to one foot long. Leaves opposite, egg-shaped, shining, evergreen, with stalks. Fruit a double (two-cored) berry persisting through the winter.

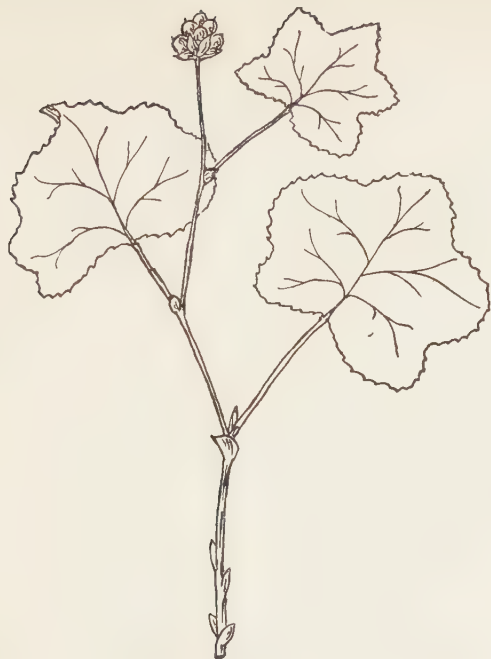
Cranberry (*Vaccinium macrocarpon*). Heath family.

A low vine with slender stem, giving off upright branches, several inches long, with oval leaves not over one-half inch long. Fruit a sour berry about three-fourths inch in diameter. Bogs. Autumn. Small Cranberry (*V. Oxycoccus*) is similar but with more delicate stems, shorter branches and leaves not over one-third inch long. Fruit not over one-half inch in diameter.

Wintergreen (*Gaultheria procumbens*). Heath family.

Apparently little shrubs a few inches high, in reality branches rising from an underground stem. The evergreen oval leaves are obscurely toothed. Fruit generally a few berries, pendant, axillary, on short stalks, globular, five-celled, each cell containing many seeds. Autumn.





CLOUDBERRY
(*Rubus Chamæmorus*)



CRANBERRY
(*Vaccinium macrocarpon*)



WINTERGREEN
(*Gaultheria procumbens*)

WHITE OR WHITISH FRUIT

WHITE OR WHITISH FRUIT

Plants with opposite leaves = Group I.

Plants with alternate leaves = Group II.

GROUP I

Leaves opposite.

Red-osier Dogwood (*Cornus stolonifera*). Dogwood family.

A rather tall branching shrub with reddish twigs. The leaves are opposite, egg-shaped, not toothed, sharp-pointed, somewhat white beneath, with slender stalks. Fruit white berries in flat terminal clusters.

Panicled Dogwood (*Cornus paniculata*). Dogwood family.

A rather tall branching shrub. The leaves are short, broadly egg-shaped or lance-shaped, not toothed, tapering to a point. Fruit white berries in rounded terminal clusters. Late summer.

Snowberry (*Symphoricarpos racemosus*). Honeysuckle family.

A shrub one to three feet high, with round to oblong leaves, without teeth. White berries in close clusters. An escape from gardens. Summer to early autumn.

GROUP II

Leaves alternate.

Creeping Snowberry (*Chiógenes hispidula*). Heath family.

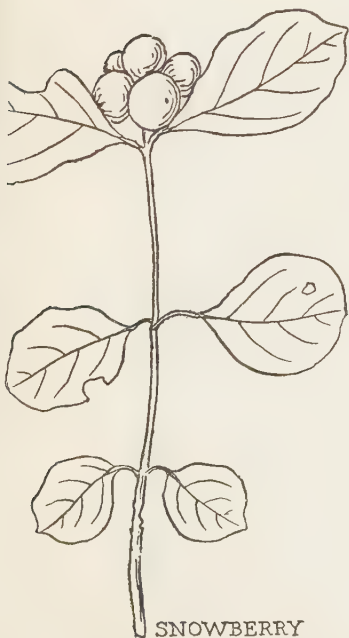
A small trailer with little, rounded, evergreen leaves on short stalks. Fruit white berries, solitary in the axils. Late summer.



RED-OSIER DOGWOOD
(*Cornus stolonifera*)



PANICLED DOGWOOD
(*Cornus paniculata*)



SNOWBERRY
(*Symphoricarpos racemosus*)



CREeping SNOWBERRY
(*Chiogenes hispidula*)

WHITE OR WHITISH FRUIT

Poison Sumach (*Rhus Vernix*). Cashew family.

A branching shrub, maximum height eighteen feet. Leaves of seven to thirteen leaflets, egg-shaped to oblong, not toothed. Fruit small globular berries, clustered in axils.

Poison Ivy. Poison Oak (*Rhus Toxicodendron*).

Cashew family.

A plant with woody stem, climbing or upright. Leaves of three leaflets, four-sided to egg-shaped, mostly pointed, unequally notched, waving or cut. Fruit small, globular berries, dun-colored, clustered in axils. Early autumn.

Bayberry (*Myrica carolinensis*). Sweet Gale family.

A branching shrub, two to six feet or over; leaves alternate, oblong, untoothed, or with rounded teeth, on short stalks. Fruit berry-like (drupe), diameter about one-fifth inch, with white waxy coating, thickly clustered on short stalks; used for making candles. Sandy soil near the coast.

White Baneberry (*Actæa alba*). Crowfoot family.

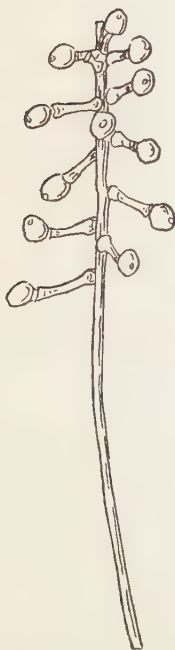
An erect perennial, a foot or two high. The leaves of many leaflets pointed, cut and toothed. Fruit conspicuous in the open woods, oval white berries, with dark spots, in raceme, on thick (occasionally thin) red stalks. Late summer.



POISON SUMACH
(*Rhus Vernix*)



BAYBERRY
(*Myrica carolinensis*)



WHITE BANEBERRY
(*Actaea alba*)



POISON IVY
(*Rhus Toxicodendron*)

BLACK, BLUE AND PURPLE FRUIT

CHART OF BLACK, BLUE AND PURPLE FRUIT

Directions.—First note whether plant falls in Class I or II, then follow out to right. When a group-number is reached, turn to page indicated and look through the group.

Class I.—Plant trailing or climbing = Group I, p. 356

Class II.—Plant upright { Herb¹ = Group II, p. 358
 { Shrub² { Leaves opposite³ = Group III, p. 362
 { Leaves alternate = Group IV, p. 366

¹ Plant with soft stem dying down every year.

² Woody plant smaller than a tree.

³ Arranged in pairs, *i. e.*, opposite each other, *on the stem*, not at the root.

BLACK, BLUE AND PURPLE FRUIT

GROUP I

TRAILING AND CLIMBING PLANTS

Carrion-flower (*Smilax herbacea*). Lily family.

A climbing vine with smooth stem and leaves somewhat heart-shaped, blunt-pointed. Fruit black berries with bloom, round and flat in close, round clusters on long stalks. Late summer.

Greenbrier. Horsebrier (*Smilax rotundifolia*). Lily family.

A troublesome vine forming sometimes an almost impenetrable tangle. Stem yellow-green with prickles; branches more or less four-sided. Leaves pointed, their bases round or heart-shaped, generally not toothed. Fruit round, black berries in umbels on flat stalks from axils. Early autumn.

Glaucous-leaved Greenbrier (*Smilax glauca*). Lily family.

Sometimes with prickles; leaves oval, white underneath. Fruit as above. Early autumn.

Moonseed (*Menispermum canadense*). Moonseed family.

A climber having broad leaves with three to seven angles or lobes. The delicate leaf-stalk is attached to the under surface of the leaf. The fruit (drupe) is berry-like, black, with a bloom, in loose cluster. Early autumn.

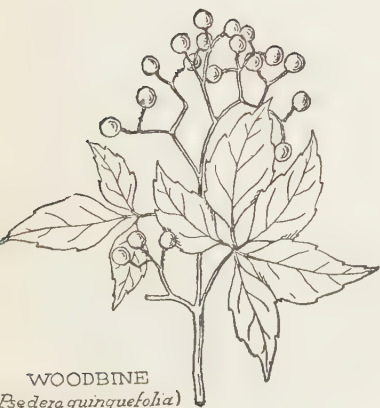
Woodbine. Virginia Creeper. (*Pseclera quinquefolia*). Vine family.

A common vine climbing by tendrils. Leaves of five leaflets palmately arranged. Fruit a small, generally blue berry, loosely clustered, on stiffly branching stalks. Autumn. Generic name supposedly a contraction for Greek false and ivy (Gray).



GREENBRIER
(*Smilax rotundifolia*)

CARRION-FLOWER
(*Smilax herbacea*)



WOODBINE
(*Parthenocissus quinquefolia*)



MOONSEED
(*Menispermum canadense*)

GROUP II

Upright herbs.

Solomon's Seal (*Polygonatum biflorum*). Lily family.

A plant with curving stem, average height two feet. Leaves oblong to egg-shaped, or lance-shaped, practically without stalks. Root-stalk knotted and bearing scars from which the English name is derived. Fruit *blue berries* with bloom, one or two from each axil on drooping stalks. Late summer, early autumn. Great Solomon's Seal (*P. commutatum*) sometimes reaches six feet, its leaves are partly clasping, and it has more berries in a cluster.

Indian Cucumber-root (*Medèola virginiana*). Lily family.

A stem about two feet high bears two whorls of leaves; in the lower whorl, five to nine inversely egg-shaped to lance-shaped leaves, pointed, without stalks; in the upper whorl three, occasionally more, egg-shaped. The fruit consists of a few purple (or black) berries on red stalks. Seeds one to three. Woods. Early autumn.

Blue Cohosh (*Caulophyllum thalictroides*). Barberry family.

A branching herb with maximum height of two and one-half feet. The twice-compounded leaves have leaflets somewhat wedge-shaped, lobed. Fruit bluish, berry-like, in terminal clusters, generally in pairs of unequal size. Woods. Summer.

Yellow Clintonia (*Clintonia borealis*). Lily family.

A plant with upright leafless stem under a foot high bearing the fruit at the top. The leaves, generally three, spring from the base, are large, oblong, or egg-shaped. The fruit consists of several *blue berries* full of seeds, in umbel. Late summer.



Solomon's Seal (*Polygonatum biflorum*)



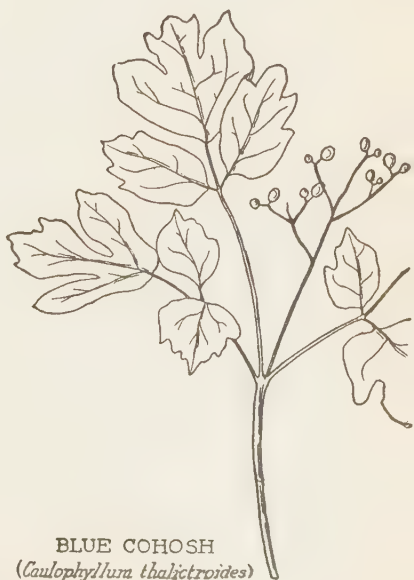
YELLOW CLINTONIA
(*Clintonia borealis*)



INDIAN CUCUMBER-ROOT
(*Medeola virginiana*)



SOLOMON'S SEAL
(*Polygonatum biflorum*)



BLUE COHOSH
(*Caulophyllum thalictroides*)

BLACK, BLUE AND PURPLE FRUIT

Wild Sarsaparilla (*Aralia nudicaulis*). Ginseng family.

From a very short stem, practically underground, rises a single fruit-stalk, perhaps a foot high, and a single leaf-stalk. The dark-purple berries are in a compound umbel at the end of the fruit-stalk. The root is aromatic. The main leaf-stalk divides at the top into three slender stalks, each of which bears five leaflets pinnately set. Open woods. Midsummer.

Spikenard (*Aralia racemosa*). Ginseng family.

An openly branching plant several feet high, with doubly toothed, heart-shaped leaflets. The fruit is small, berry-like, dark purple or black, many in a long cluster. The root is aromatic. Early autumn, in woody regions. •

Blackberry Lily (*Belamcanda chinensis*). Iris family.

From the grass-like leaves at the base rises a tall flower-bearing stalk. The fruit suggests a blackberry with many grains. Not commonly found wild in New England, though sometimes under cultivation here, for example, in the Harvard Botanic Garden. July to September. (Old East Indian name.)

Rattle-box (*Crotalaria sagittalis*). Pulse family.

A low plant with leaves whose stipules run down the stem. The fruit is an inflated pod three-fourths inch long, black, with little round seeds which rattle at maturity. The fruit gives the English name, the stipules the Latin.



SPIKENARD
(*Aralia racemosa*)



WILD SARSAPARILLA
(*Aralia nudicaulis*)



RATTLE-BOX
(*Crotalaria sagittalis*)



BLACKBERRY LILY
(*Belamcanda chinensis*)

BLACK, BLUE AND PURPLE FRUIT

Poke. Garget (*Phytolacca decandra*). Pokeweed family.

A tall, stout, spreading herb with conspicuously red or purple stem. The leaves are large, sometimes a foot long, pointed. Fruit dark-purple flattened berries in long racemes, terminal or opposite the leaves. Common in waste places. Early autumn.

GROUP III

Shrubs with opposite leaves.

Maple-leaved Viburnum. Dockmackie (*Viburnum acerifolium*). Honeysuckle family.

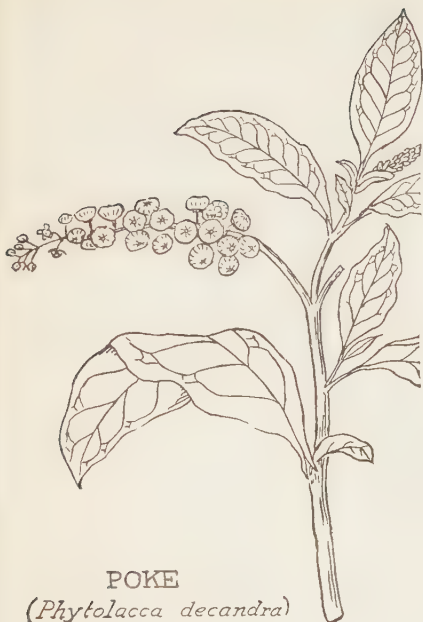
A branching shrub, several feet high, with straggling growth. The leaves somewhat resemble those of the Red Maple, having three pointed lobes, irregularly toothed. Fruit almost black, berry-like (drupe) in flat clusters at the end of the branches, oval, slightly flattened, with thin pulp. The stone is rounded with two shallow grooves on one side. Late summer.

Arrow-wood (*Viburnum dentatum*). Honeysuckle family.

A rather tall shrub with pointed, egg-shaped leaves, somewhat heart-shaped at the base and coarsely toothed. Fruit small (drupe), dark-blue, in flat terminal clusters. Late summer.

Withe-rod (*Viburnum cassinoides*). Honeysuckle family.

A rather tall shrub with oval leaves either without teeth or with fine rounded teeth. Fruit berry-like (drupe) in terminal clusters, round or ovoid, dark-blue or blackish (at first pink), different colors in same cluster. Late summer.



POKE
(*Phytolacca decandra*)



MAPLE-LEAVED VIBURNUM
(*Viburnum acerifolium*)



ARROW-WOOD
(*Viburnum dentatum*)



WITHE-ROD
(*Viburnum cassinoides*)

BLACK, BLUE AND PURPLE FRUIT

Elder (*Sambucus canadensis*). Honeysuckle family.

A common shrub a few to ten feet high. Leaves of five to eleven leaflets. Fruit berry-like (drupe) small, dark-purple, in terminal drooping clusters. Rich ground. Early autumn.

Privet (*Ligustrum vulgare*). Olive family.

An upright branching shrub, six feet high or over. The leaves are opposite, oblong, blunt-pointed, without teeth. Panicked clusters of black berries at the ends of the branches. Autumn.



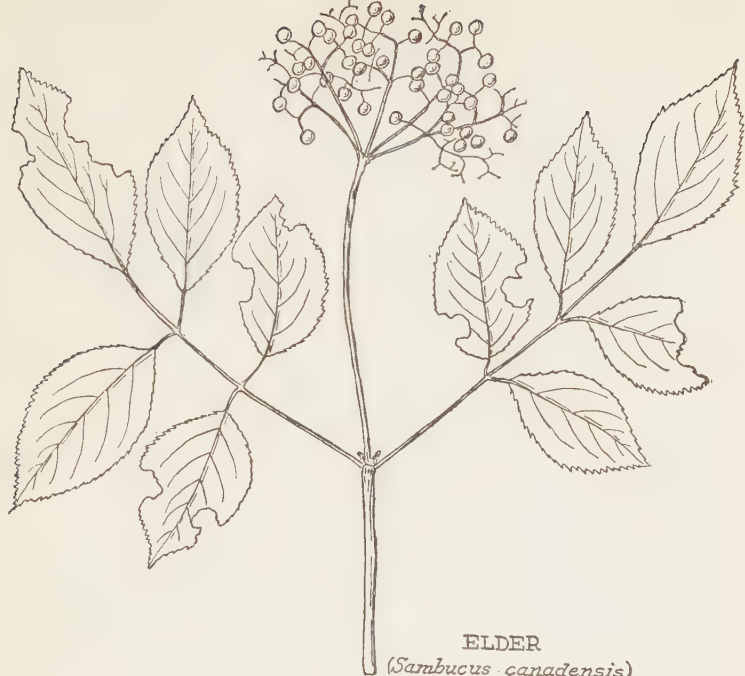
PRIVET
(*Ligustrum vulgare*)

Nannyberry. Sweet Viburnum (*Viburnum Lentago*).
Honeysuckle family.

A shrub with ovate, pointed leaves with close-pointed teeth; leaf-stalks with margins. Fruit in terminal clusters, ovoid, black or dark-purple (earlier crimson). The stone is grooved on both sides. Early autumn.

Round-leaved Dogwood (*Cornus circinata*). Dogwood family.

A shrub with rounded, short-pointed leaves, woolly beneath. Fruit light-blue, in terminal clusters. Early autumn.



ELDER
(*Sambucus canadensis*)



NANNYBERRY
(*Viburnum Lentago*)



ROUND-LEAVED DOGWOOD
(*Cornus circinata*)

BLACK, BLUE AND PURPLE FRUIT

Black Haw (*Viburnum prunifolium*). Honeysuckle family.

A tall shrub or small tree with oval, obtusely pointed, fine-toothed, short-stemmed leaves. Fruit berry-like (drupe), ovoid, black, or with purplish bloom in terminal clusters. Early autumn.

GROUP IV

Upright shrubs with alternate leaves.

Alternate-leaved Dogwood (*Cornus alternifolia*). Dogwood family.

A tall shrub with leaves thickly set at the top, egg-shaped or oval, long-pointed. Fruit (drupe) similar to the other dogwood fruits, but dark-blue on red stalks, in irregular terminal clusters. Late summer.

Dangleberry (*Gaylussacia frondosa*). Heath family.

A shrub with maximum height of six feet; leaves egg-shaped to oblong, pale with bloom beneath. Fruit large blue berries with whitish bloom, sweet and edible, in loose, slender clusters. Midsummer.

Inkberry (*Ilex glabra*). Holly family.

A shrub with maximum height of six feet, with evergreen, shining leaves, an inch or two long, dotted underneath, blunt-pointed, generally with several teeth at the end, and with short leaf-stalks. Fruit berry-like (drupe), black, each one on a stalk. Sandy ground. (Old Latin name of Holly Oak.)



INKBERRY
(*Ilex glabra*)



DANGLEBERRY
(*Gaylussacia frondosa*)



BLACK HAW
(*Viburnum prunifolium*)

GREEN, GREENISH, OR YELLOWISH FRUIT

SPECKLED FRUIT

GREEN, GREENISH, OR YELLOWISH FRUIT

Fruit larger than a common berry = Group I.

Fruit small = Group II.

GROUP I

Fruit larger than a common berry.

May Apple (*Podophyllum peltatum*). Barberry family.

A perennial herb about a foot high, with stalk inserted on the under side of a leaf (peltate) about a foot broad. Another stem bears one to three similar leaves and the fruit, in the crotch. Fruit an inch or two long, egg-shaped, yellowish, edible. Western New England, West and South. Midsummer.

Thorn Apple (*Datura Stramonium*). Nightshade family.

A rank, bad-smelling, annual weed, growing in waste ground, several feet high, with large leaves. Fruit somewhat egg-shaped with long prickles growing from fork. See illustration on page 177.

Wild Balsam-apple (*Echinocystis lobata*). Gourd family.

A tall annual, climbing by tendrils, with thin leaves of five lobes. Fruit green, two inches long, with delicate prickles. The vine spreads luxuriantly in some localities.

Ground Cherry (*Physalis virginiana*). Nightshade family.

A branched and spreading perennial, averaging about two feet high. The leaves are large and broad. Fruit a yellow berry enveloped in the calyx, borne separately on nodding stalk.



May Apple (*Podophyllum peltatum*)



GROUND CHERRY
(*Physalis virginiana*)



WILD BALSAM-APPLE
(*Echinocystis lobata*)



MAY APPLE
(*Podophyllum peltatum*)

GREEN, GREENISH, OR YELLOWISH FRUIT

GROUP II

Fruit small.

Squaw Huckleberry. Deerberry (*Vaccinium stamineum*).
Heath family.

A finely hairy, widely spreading shrub, under three feet high, with pale egg-shaped or oval leaves. The fruit consists of round or pear-shaped, greenish or yellowish, few-seeded berries in raceme. Early autumn in dry woods and open ground.

Dwarf Ginseng. Groundnut (*Panax trifolium*). Ginseng family.

A perennial herb with single stem several inches high rising from a deeply set, round tuber. There are three oblong leaves in a whorl below the fruit, each leaf divided into three to five leaflets, directly placed on the end of the leaf-stalk (palmate). Fruit yellow berries in an umbel at the top. The fruit of *Panax quinquefolium*, *q.v.*, the root of which is so highly prized by the Chinese, is a bright red.

Climbing Bitter-sweet (*Celastrus scandens*). Staff-tree family.

A twining shrub with egg-shaped to oblong alternate leaves, finely toothed, short-stalked. The vine is very hardy, grows over walls and in the woods, and lends itself well to cultivation. The fruit, ripening in early autumn, at first appears as a round, orange-colored berry; later it opens in three divisions which curl back so as to show the red covering of the seeds. The fruit persists.



DWARF GINSENG
(*Panax trifolium*)



CLIMBING BITTER-SWEET
(*Celastrus scandens*)



SQUAW HUCKLEBERRY
(*Vaccinium stamineum*)

SPECKLED FRUIT

False Solomon's Seal (*Smilacina racemosa*).

Lily family.

An upright herb with average height of two feet. The stem is unbranched and bears long, pointed leaves with parallel veins, and in a terminal cluster, the fruit, round berries, finally dull-red, earlier white with red speckles. Early autumn.

Wild Lily-of-the-Valley (*Maianthemum canadense*). Lily family.

An herb with single stem a few inches high. Two (sometimes three) leaves, long, pointed, with parallel veins and somewhat heart-shaped base without stalks or with very short ones. Fruit finally red berries in terminal racemes, but at first only speckled with red.



WILD LILY-OF-THE-VALLEY
(*Maianthemum canadense*)



FALSE SOLOMON'S SEAL
(*Smilacina racemosa*)

GLOSSARY

Alternate (leaves)—Arranged on the stem, or branch, otherwise than opposite or whorled.

Annual—Lasting only one year.

Anther—The pollen-bearing part of the stamen.

Axillary—In the angle between a leaf, or branch, and the stem.

Berry—A small, wholly fleshy fruit.

Bloom—A waxy surface, as on the plum.

Bract—A modified leaf.

Bulb—A rounded, underground bud with thick scales.

Bulbous—With the characteristics of a bulb.

Calyx—The outer part of the floral envelope, made up of sepals, separate or joined together, generally green (see illustration in Introductory Chapter).

Cleft—Cut about half way.

Cluster—An assemblage, or bunch, of flowers or leaves. The term is not applied to the spike, raceme, head, or definite umbel, but includes corymbs, cymes, panicles, and compound racemes.

Composite—The name of a large family in which apparently single flowers, like the daisy, are made up of many florets supported by an involucre. The central ones (usually tubular) may form a disk, the outer forming rays, as in the daisy, or all may be strap-shaped, as in the dandelion, or all may be tubular (see page xx).

Compound leaf—A leaf made up of similar parts called leaflets (see illustrations in Introductory Chapter).

Corm—A solid, enlarged stem-base, suggesting a bulb.

Corolla—The inner part of the floral envelope, made up of petals, separate or joined together. It is generally the part which gives the flower its color (see illustration in Introductory Chapter).

Corymb—A flat or convex cluster with the outer flowers blossoming first.

Cyme—A cluster with the inner flowers blossoming first.

GLOSSARY

Diœcious—With staminate and pistillate flowers on different plants.

Disk—The centre of a composite flower-head.

Dissected—Finely cut up (see illustration of Yarrow, p. 131).

Divided—With lobes reaching to the base.

Drupe—A fleshy fruit with stony centre, as the cherry.

Exserted—Projecting, as stamens projecting beyond corolla.

Filament—The part of the stamen bearing the anther.

Flower-head—A collection of florets joined into an apparently single flower as in the Composite family.

Fruit—The part containing the seed.

Head—A thick, close cluster of flowers practically, or quite, without separate stalks, as in the clover.

Herb—A plant without lasting woody stem.

Involucre—A collection of bracts around a flower or flower-head.

Lance-shaped—Long-pointed, with widest part nearer the base.

Lateral—Growing on the side of the stem, or branch, as opposed to terminal.

Leaflet—One of the similar parts making up a compound leaf.

Lobe—A projection (as of the edge of a leaf, or of the corolla).

Lyre-shaped—Pinnately cut with large lobe at end.

Monœcious—With staminate and pistillate flowers on the same plant.

Mucronate—Ending abruptly in a short bristle tip or "mucro."

Nodes—The places on the stem where leaves grow, or would naturally grow.

Oblong—Of greater length than width, and with more or less parallel sides.

Opposite (leaves)—Arranged in pairs on the stem, or branch (see illustration in Introductory Chapter).

Oval—Broadly elliptical.

Ovary—The part containing the ovule.

Ovule—The embryo and its coats, later the seed.

GLOSSARY

Palmate—With divisions radiating out from the centre, as in the horse-chestnut leaf.

Panicle—A loose, compound cluster with flowers on individual stalks.

Papilionaceous—With the formation of the Pulse family flowers, as the pea blossom, with standard, wings and keel.

Pappus—Bristles and the like surmounting the fruit in the Composite family.

Parted—Deeply cleft, but not quite divided.

Pedicel—The stalk of a separate flower in a cluster.

Peduncle—The main stalk which supports a solitary flower or collection of flowers.

Perennial—Lasting from year to year.

Perfect—With both pistil and stamens.

Perianth—The floral envelope, including calyx and corolla, a term used commonly when the petals and sepals are indistinguishable, as in most of the lily family.

Petiole—The stalk of a leaf.

Pinnate—Arranged as in a feather.

Pistil—The part of the flower which bears the seeds. The pistil includes the ovary, the style, and the stigma, but the name is commonly applied to the visible portion (see illustration in Introductory Chapter).

Pistillate—Having pistils (said of a female flower).

Polygamous—Having perfect, staminate and pistillate flowers, on the same or different plants.

Pome—A fruit like the apple.

Raceme—An arrangement in which the flowers succeed one another on a single stalk, each flower having a stalk of its own (see illustration in Introductory Chapter).

Ray-flowers—The flowers at the margin of a composite flower-head, when they are distinct from the disk.

Regular—Each part uniform in size and shape, thus all the petals alike.

Rhizome—See ROOT-STALK.

Root-stalk—A horizontal stem on or under the ground, generally giving off successive roots at the nodes.

GLOSSARY

Scape—A leafless peduncle growing from the ground.

Sepals—The divisions of the calyx (see illustration in Introductory Chapter.)

Sessile—Growing directly on the stem or the branch.

Shrub—A woody plant, not as large as a tree.

Simple (leaf)—Not compound, *i.e.*, not made up of leaflets.

Spathe—A large bract enveloping the flower, as the "hood" of "Jack-in-the-Pulpit," Jack being the **Spadix**.

Spike—An arrangement in which the flowers succeed each other on a single stalk, having no separate stalks of their own, but growing directly, or nearly so, upon the main stalk (see illustration in Introductory Chapter).

Stamens—The organs which bear the pollen (see illustration in Introductory Chapter).

Staminate—Having stamens (said of a male flower).

Stem—The main support of the plant. Upon the stem are borne the branches, if any.

Stigma—The end of the pistil.

Stipule—An appendage at the base of a leaf-stalk.

Style—The part of the pistil connecting stigma and ovary.

Symmetrical—Having the same number of each part.

Terminal—At the end of the stem or branch, as opposed to axillary.

Tuber—A short, thick, underground stem with "eyes" (buds).

Umbel—A cluster of flowers, or fruits, borne upon stalks which start from the same point (see illustration in Introductory Chapter).

Whorled—Arranged in a circle around the stem or branch.

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INDEX BY FAMILIES

The families are arranged as in Gray's Manual.

The abbreviations are as follows: **Y**=yellow and yellowish flowers, **W**=white and whitish flowers, **Pk**=pink flowers, including magenta, **Bl**=blue and purple flowers, including lilac and violet, **R**=red and orange flowers, including magenta, **G**=green and greenish flowers, **Br**=brown and variegated flowers, **R Fr**=red fruit, **W Fr**=white fruit, **B Fr**=black, blue and purple fruit, **G Fr**=greenish and yellowish fruit, **Sp Fr**=speckled fruit.

- Water-plantain (*Alismaceae*), **W** 120
 Arum (*Araceae*), **Y** 38; **W** 128; **G** 302; **Br** 314, 316; **R Fr** 338
 Pipewort (*Eriocaulaceae*), **W** 128
 Yellow-eyed Grass (*Xyridaceae*), **Y** 42
 Spiderwort (*Commelinaceae*), **Bl** 280
 Pickerel-weed (*Pontederiaceae*), **Bl** 250
 Lily (*Liliaceae*), **Y** 22, 40, 72, 74; **W** 104, 124, 126, 148, 150, 180; **Pk** 222; **R** 290; **G** 310, **R Fr** 336, 338, 340; **B Fr** 356, 358; **Sp Fr** 374
 Amaryllis (*Amaryllidaceae*), **Y** 40
 Iris (*Iridaceae*), **Y** 38; **Bl** 248; **B Fr** 360
 Orchis (*Orchidaceae*), **Y** 74; **W** 122, 124, 146; **Pk** 220, 222, 224; **Bl** 242, 254, 280; **G** 304, 306
 Pepper (*Piperaceae*), **W** 146
 Sweet Gale (*Myricaceae*), **W Fr** 350
 Sandalwood (*Santalaceae*), **W** 176
 Birthwort (*Aristolochiaceae*), **G** 308; **Br** 316
 Buckwheat (*Polygonaceae*), **W** 152; **Pk** 214, 218; **R** 292; **G** 306
 Goosefoot (*Chenopodiaceae*), **G** 306
 Pokeweed (*Phytolaccaceae*), **W** 150; **B Fr** 362
 Pink (*Caryophyllaceae*), **W** 92, 94, 96, 98, 108, 188; **Pk** 190, 192; **Bl** 238; **R** 288
 Purselane (*Portulacaceae*), **Pk** 192
 Water Lily (*Nymphaeaceae*), **Y** 40
 Crowfoot (*Ranunculaceae*), **Y** 62, 64; **W** 106, 116, 126, 132, 134, 140; **Bl** 246, 248; **R** 294; **G** 310; **R Fr** 338; **W Fr** 350
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 Poppy (*Papaveraceae*), **Y** 26; **W** 122
 Fumitory (*Fumariaceae*), **W** 124; **Pk** 206, 222
 Mustard (*Cruciferae*), **Y** 66, 68; **W** 94, 132, 146, 150; **Bl** 280; **G** 304
 Pitcher-plant (*Sarraceniacae*), **R** 294
 Sundew (*Droseraceae*), **W** 116; **Pk** 216
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 Pulse (*Leguminosae*), **Y** 24, 30, 32, 34, 72; **W** 134, 152; **Pk** 210, 212, 214; **Bl** 264, 266, 268; **R** 292; **Br** 314; **B Fr** 360
 Wood Sorrel (*Oxaladaceae*), **Y** 28; **W** 116
 Geranium (*Geraniaceae*), **Pk** 190; **Bl** 238
 Milkwort (*Polygalaceae*), **Pk** 202, 214, 216, 224; **Bl** 280
 Spurge (*Euphorbiaceae*), **Y** 76; **W** 174
 Cashew (*Anacardiaceae*), **G** 302, 310; **R Fr** 330; **W Fr** 350
 Holly (*Aquifoliaceae*), **R Fr** 332, 334; **B Fr** 366
 Staff Tree (*Celastraceae*), **G** 310; **G Fr** 372

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- Touch-me-not (*Balsaminaceae*), **Y** 76
 Buckthorn (*Rhamnaceae*), **W** 148, 156
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 Rockrose (*Cistaceae*), **Y** 60
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 Evening Primrose (*Onagraceae*), **Y** 66; **W** 94; **Pk** 194, 216
 Ginseng (*Araliaceae*), **W** 108, 134, 136, 142; **B Fr** 360; **G Fr** 372
 Parsley (*Umbelliferae*), **Y** 24; **W** 130, 136, 138, 152
 Dogwood (*Cornaceae*), **W** 90, 104; **R Fr** 324, 338; **W Fr** 348; **B Fr** 364, 366
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 Leadwort (*Plumbaginaceae*), **Bl** 250
 Primrose (*Primulaceae*), **Y** 12, 14, 24; **W** 104, 150; **Bl** 250; **R** 288
 Olive (*Oleaceae*), **B Fr** 364
 Gentian (*Gentianaceae*), **W** 126, 128; **Pk** 196, 202; **Bl** 240, 242
 Dogbane (*Apocynaceae*), **Pk** 196; **Bl** 238
 Milkweed (*Asclepiadaceae*), **Pk** 198, 200; **R** 294; **G** 308
 Convolvulus (*Convolvulaceae*), **W** 112, 154, 176; **Pk** 206
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 Mint (*Labiatae*), **Y** 16; **W** 92; **Pk** 186; **Bl** 230, 232, 234, 236; **R** 288
 Nightshade (*Solanaceae*), **Y** 70; **W** 176; **Bl** 262; **R Fr** 342; **G Fr** 371
 Figwort (*Scrophulariaceae*), **Y** 12, 16, 60, 70, 72; **W** 100, 110; **Pk** 192; **Bl** 236, 242, 244, 246, 282; **R** 294
 Bladderwort (*Lentibulariaceae*), **Y** 26, 76; **Bl** 254
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 Madder (*Rubiaceae*), **W** 90, 102; **Bl** 246; **R Fr** 344
 Honeysuckle (*Caprifoliaceae*), **Y** 14; **W** 84, 86, 88; **Pk** 196; **R** 288; **R Fr** 324, 326; 328, 334, 342; **W Fr** 348; **B Fr** 362, 364, 366
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